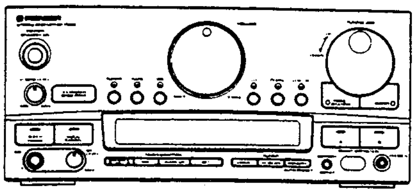
PIONEER
The Art of Entertainment

Service Manual



ORDER NO.
ARP2398

STERO RECEIVER

SX-P920
SX-P720

SX – P920 AND SX – P720 HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	SX – P920	SX – P720		
HE	○	○	AC220V – 230V, 240V (Switchable)*	
HB	○	○	AC220V – 230V, 240V (Switchable)*	
HEWZI	○	○	AC220V – 230V, 240V (Switchable)*	
SD	○	○	AC110V, 120V – 127V, 220V, 240V (Switchable)	
KUC	—	○	AC120V only	

* Change the connection of the power transformer's primary wiring.

- **This manual is applicable to SX – P920/HE, HB, HEWZI and SX – P720/HE, HB, HEWZI.**
- **As to the SX – P920/HB, HEWZI and SX – P720/HB, HEWZI, refer to page 54.**
- **As to the other types, refer to the applicable service manuals.**
- **These products are component of systems. As to the system composition, refer to the system manual (s).**
- **Each of these products does not function properly when independent ; to avoid malfunctions, be sure to connect it to the prescribed system component (s), otherwise damage may result.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

CONTENTS

1. SAFETY INFORMATION 2
2. EXPLODED VIEWS, PACKING AND PARTS LIST 3
3. SCHEMATIC DIAGRAMS AND PCB CONNECTION DIAGRAMS 7
4. PCB PARTS LIST 34
5. ADJUSTMENTS 42
5. REGLAGE 44
5. AJUSTE 46
6. IC INFORMATION 48
7. DISASSEMBLY 52
8. FOR SX – P920/HB, HEWZI AND SX – P720/HB, HEWZI TYPES 54
9. PANEL FACILITIES 86
10. SPECIFICATIONS 88

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LFDHR.4005

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

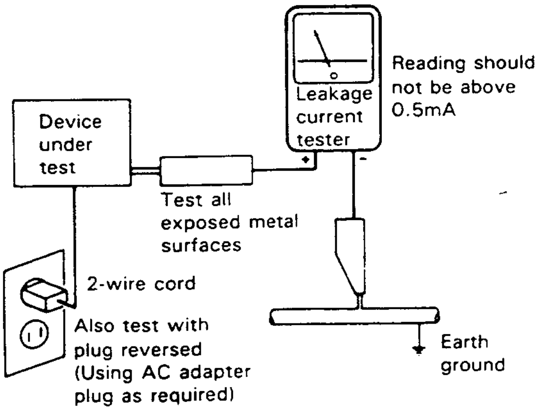
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Leakage current tester
Reading should not be above 0.5mA
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

- *The parts with an encircled number are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

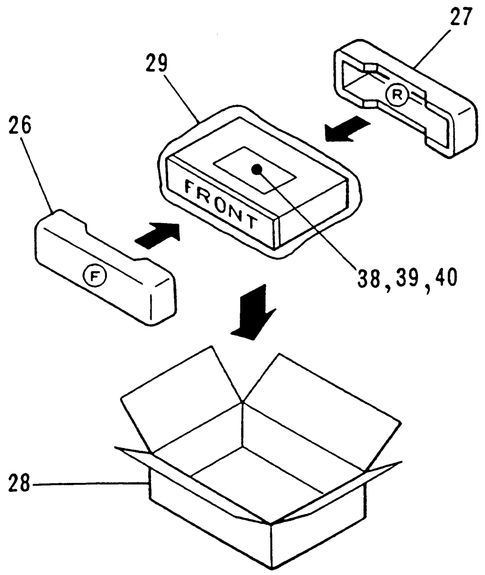
2.1 PARTS LIST OF SX – P920/HE

Mark	No.	Description	Parts No.
	1	KNOB (VOLUME)	AAB1249
	2	KNOB (JOG)	AAB1251
	3	KNOB (P.BASS LEVEL, MIC LEVEL)	AAB1253
	4	FUNCTION BUTTON (TUNER, TAPE, CD, LD, PHONO, VCR/DAT)	AAD2067
	5	BAND BUTTON (FREQ. STATION, BAND)	AAD2069
	6	POWER BUTTON	AAD2070
	7	P-BASS BUTTON (2) ASSY (SUPER P. BASS, VOCAL CANCEL)	AAD2074
	8	AI BUTTON ASSY (SMART OPERATION, MEMORY)	AAD2080
	9	FUNCTION LENS	AAK2206
	10	FILTER (REMOCON)	AAK2208
	11	DECORATIVE PLATE (TUNER)	AAK2255
◉	12	MAIN ASSEMBLY	AWZ3719
◉	13	SUB. POWER ASSEMBLY	AWZ3727
	14	SCREW	ABA–258
	15	SCREW (STEEL)	ABA1095
	16	NUT	ABN1016
⚠	17	AC POWER CORD	ADG1019
	18	RUBBER SHEET	AEB1111
	19	BINDER	AEC–826
	20	STRAIN RELIEF	AEC–882
	21	SPACER	AEC1236
	22	PCB SPACER (3×8)	AEC1371
	23	PCB SPACER (3×12)	AEC1372
	24	....	
◉	25	FR. AMP ASSEMBLY	AWZ3734
	26	FRONT PAD	AHA1453
	27	REAR PAD	AHA1454
	28	PACKING CASE	AHD2179
	29	PACKING SHEET	AHG1093
	30	MIC ASSEMBLY	AWZ3736
	31	FRONT PANEL ASSY	AMB1874
	32	PCB MOULD	AMR2115
	33	CHASSIS	ANA1155
	34	REAR PANEL	ANC1777
	35	BONNET (FE)	ANE1309
	36	HEAT SINK	ANH1352
	37	SHIELD BOX	ANK1179
	38	OPERATING INSTRUCTIONS (German, Italian)	ARC1305
	39	OPERATING INSTRUCTIONS (English, French, German, Italian)	ARC1306
	40	OPERATING INSTRUCTIONS (English, French)	ARE1211
	41	HEAD. P ASSEMBLY	AWZ3737
	42	CONNECT ASSEMBLY	AWZ3739
	43	TUNER ASSEMBLY	AWE1226
◉	44	DISPLAY ASSEMBLY	AWZ3705
◉	45	VR ASSEMBLY	AWZ3708
	46	DC MOTOR	AXM1013
	47	SCREW	BBZ30P060FZK
	48	SCREW	BBZ30P080FZK
	49	SCREW	BBZ40P060FZK
	50	SCREW	BPZ26P080FMC
	51	NUT	NK90FUC
	52	SCREW	PPZ50P100FZK
	53	FOOT (RUBBER)	REC–434
	54	SCREW	ABA1024
	55	SCREW	VBZ30P160FMC
⚠	56	FUSE (T1.6A/250V, FU51)	AEK–510
	57	FFC (J27)	ADD1100
⚠	58	POWER TRANSFORMER (T1)	ATS1378
◉	59	REGULATOR ASSEMBLY	AWZ4009

2.2 PARTS LIST OF SX – P720/HE

Mark	No.	Description	Parts No.
	1	KNOB (VOLUME)	AAB1249
	2	KNOB (JOG)	AAB1251
	3	KNOB (P.BASS LEVEL)	AAB1253
	4	FUNCTION BUTTON (TUNER, TAPE, CD, LD, PHONO, VCR/DAT)	AAD2067
	5	BAND BUTTON (FREQ. STATION, BAND)	AAD2069
	6	POWER BUTTON	AAD2070
	7	P-BASS BUTTON (1) ASSY (SUPER P. BASS)	AAD2076
	8	AI BUTTON ASSY (SMART OPERATION, MEMORY)	AAD2080
	9	FUNCTION LENS	AAK2206
	10	FILTER (REMOCON)	AAK2208
	11	DECORATIVE PLATE (TUNER)	AAK2255
◉	12	MAIN ASSEMBLY	AWZ3714
◉	13	SUB. POWER ASSEMBLY	AWZ3722
	14	SCREW	ABA–258
	15	SCREW (STEEL)	ABA1095
	16	NUT	ABN1016
⚠	17	AC POWER CORD	ADG1019
	18	RUBBER SHEET	AEB1111
	19	BINDER	AEC–826
	20	STRAIN RELIEF	AEC–882
	21	SPACER	AEC1236
	22	PCB SPACER (3×8)	AEC1371
	23	PCB SPACER (3×12)	AEC1372
	24	....	
◉	25	FR. AMP ASSEMBLY	AWZ3730
	26	FRONT PAD	AHA1453
	27	REAR PAD	AHA1454
	28	PACKING CASE	AHD2178
	29	PACKING SHEET	AHG1093
	30	....	
	31	FRONT PANEL ASSY	AMB1876
	32	PCB MOULD	AMR2115
	33	CHASSIS	ANA1155
	34	REAR PANEL	ANC1778
	35	BONNET (FE)	ANE1309
	36	HEAT SINK	ANH1352
	37	SHIELD BOX	ANK1179
	38	OPERATING INSTRUCTIONS (German, Italian)	ARC1305
	39	OPERATING INSTRUCTIONS (English, French, German, Italian)	ARC1306
	40	OPERATING INSTRUCTIONS (English, French)	ARE1211
	41	HEAD. P ASSEMBLY	AWZ3737
	42	CONNECT ASSEMBLY	AWZ3739
	43	TUNER ASSEMBLY	AWE1226
◉	44	DISPLAY ASSEMBLY	AWZ3701
◉	45	VR ASSEMBLY	AWZ3708
	46	DC MOTOR	AXM1013
	47	SCREW	BBZ30P060FZK
	48	SCREW	BBZ30P080FZK
	49	SCREW	BBZ40P060FZK
	50	SCREW	BPZ26P080FMC
	51	NUT	NK90FUC
	52	SCREW	PPZ50P100FZK
	53	FOOT (RUBBER)	REC–434
	54	SCREW	ABA1024
	55	SCREW	VBZ30P160FMC
⚠	56	FUSE (T1.25A/250V, FU51)	AEK–509
	57	FFC (J27)	ADD1100
⚠	58	POWER TRANSFORMER (T1)	ATS1374
◉	59	REGULATOR ASSEMBLY	AWZ4009

● PACKING (SX – P920/HE & SX – P720/HE)



● E
(S

SX – P920/HE
(SX – P720/SD)

Parts No.

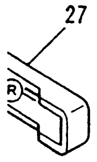
AWZ3737
AWZ3739
AWE1226
AWZ3701
AWZ3708

AXM1013
BBZ30P060FZK
BBZ30P080FZK
BBZ40P060FZK
BPZ26P080FMC

NK90FUC
PPZ50P100FZK
REC－434
ABA1024
VBZ30P160FMC

AEK－509
ADD1100
) ATS1374
AWZ4009

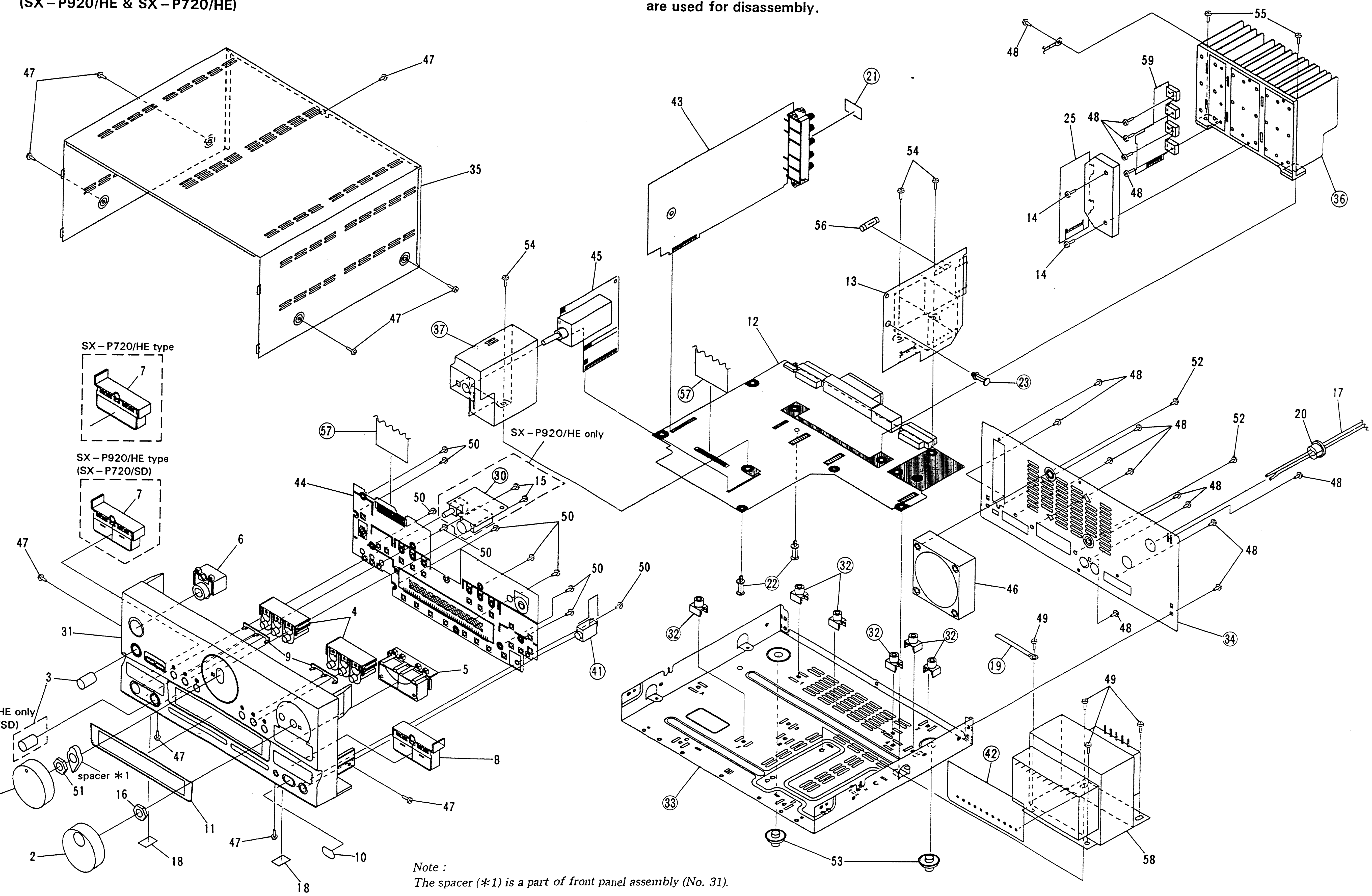
(－P720/HE)



39, 40

● EXPLODED VIEWS (SX－P920/HE & SX－P720/HE)

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

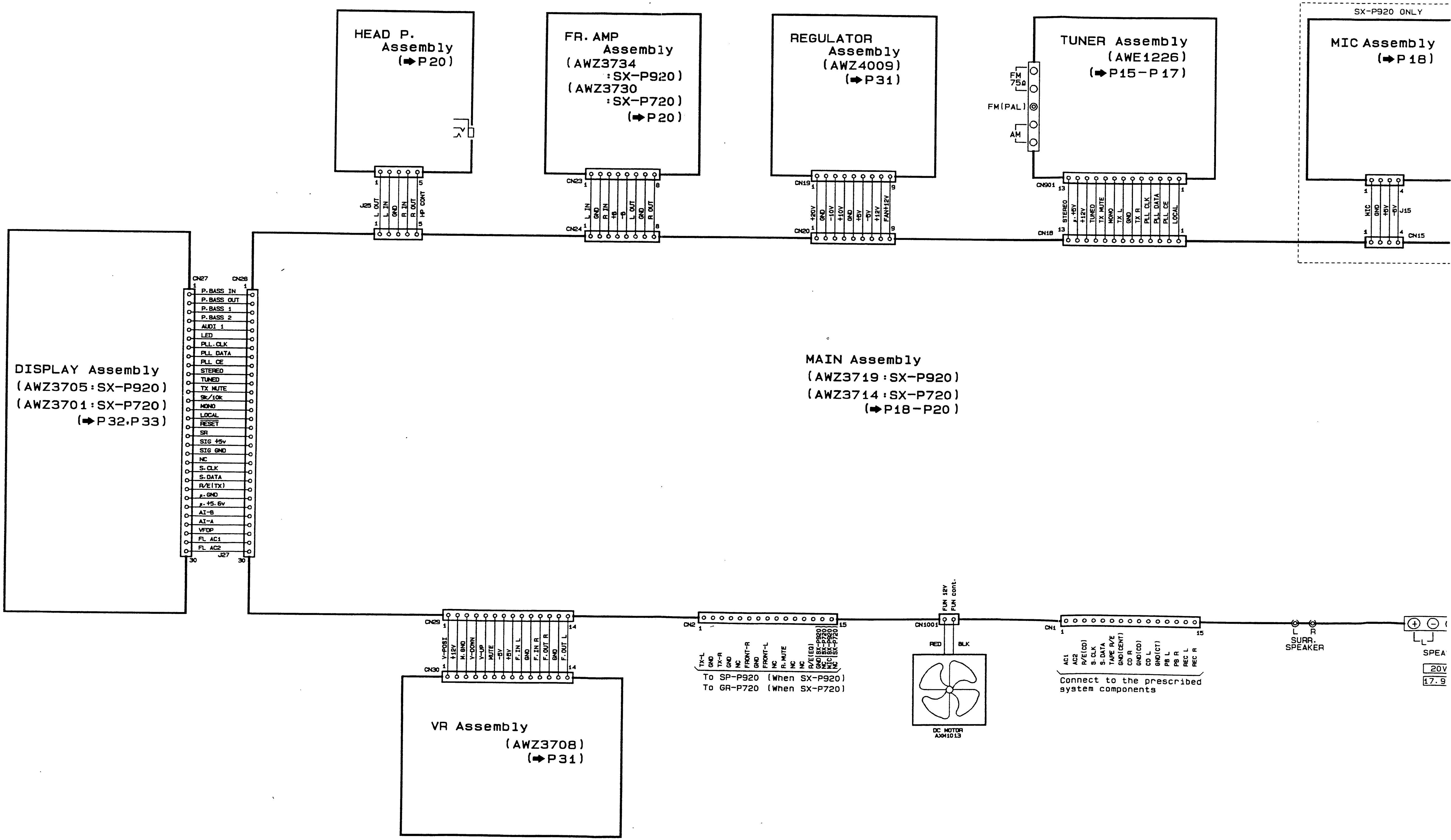

1
2
3
4
5
A
B
C
D
47
35
47
47
54
45
37
43
21
55
48
59
25
48
48
14
14
36
54
56
13
12
23
57
57
SX－P720/HE type
7
SX－P920/HE type
(SX－P720/SD)
7
44
50
50
30
15
50
50
SX－P920/HE only
50
50
41
6
47
31
4
9
5
3
SX－P920/HE only
(SX－P720/SD)
spacer ＊1
51
1
16
11
2
18
47
18
10
8
47
22
32
32
32
32
33
53
46
48
52
48
52
20
17
48
48
48
48
34
49
19
49
42
58

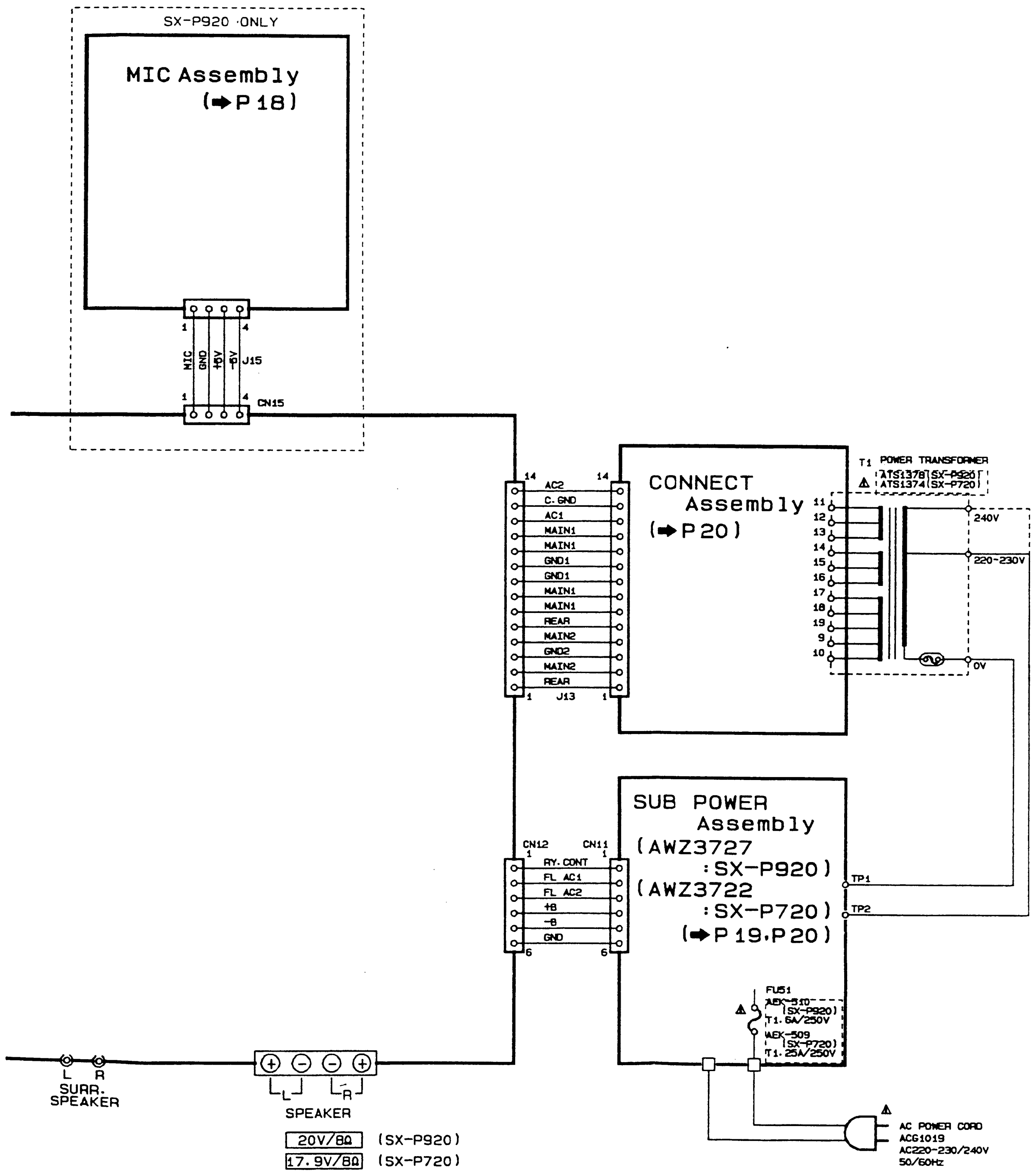
Note :
The spacer (＊1) is a part of front panel assembly (No. 31).

3. SCHEMATIC DIAGRAMS AND PCB CONNECTION DIAGRAMS

(SX−P920/HE & SX−P720/HE)

A 3.1 OVER ALL SCHEMATIC DIAGRAM


HEAD P. Assembly (➡P20)
L OUT
L IN
GND
R IN
R OUT
HP CONT
J25
FR. AMP Assembly (AWZ3734 :SX-P920) (AWZ3730 :SX-P720) (➡P20)
CN23
CN24
L IN
GND
R IN
+B
−B
L OUT
GND
R OUT
REGULATOR Assembly (AWZ4009) (➡P31)
CN19
CN20
+20V
GND
−10V
+10V
GND
+5V
−5V
+12V
FAN+12V
TUNER Assembly (AWE1226) (➡P15−P17)
FM 75Ω
FM(PAL)
AM
CN901
CN18
STEREO
μ.+5V
+12V
TUNED
TX MUTE
MONO
TX L
GND
TX R
PLL CLK
PLL DATA
PLL CE
LOCAL
SX-P920 ONLY
MIC Assembly (➡P18)
MIC
GND
+5V
−5V
J15
CN15
DISPLAY Assembly (AWZ3705:SX-P920) (AWZ3701:SX-P720) (➡P32,P33)
CN27
CN28
P.BASS IN
P.BASS OUT
P.BASS 1
P.BASS 2
AUDI 1
LED
PLL.CLK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9k/10k
MONO
LOCAL
RESET
SR
SIG +5v
SIG GND
NC
S.CLK
S.DATA
R/E(TX)
μ.GND
μ.+5.6v
AI-B
AI-A
VFDP
FL AC1
FL AC2
J27
MAIN Assembly (AWZ3719:SX-P920) (AWZ3714:SX-P720) (➡P18−P20)
CN29
CN30
V-POSI
+12V
M.GND
V-DOWN
V-UP
MUTE
−5V
+5V
F.IN L
GND
F.IN R
F.OUT R
GND
F.OUT L
VR Assembly (AWZ3708) (➡P31)
CN2
TX-L
GND
TX-R
GND
NC
FRONT-R
GND
FRONT-L
NC
R.MUTE
NC
NC
R/E(EQ)
GND(SX-P920) NC(SX-P720)
MIC(SX-P920) NC(SX-P720)
To SP-P920 (When SX-P920)
To GR-P720 (When SX-P720)
FUN 12V
FUN cont.
CN1001
RED
BLK
DC MOTOR AXM1013
CN1
AC1
AC2
R/E(CD)
S.CLK
S.DATA
TAPE R/E
GND(CENT)
CD R
GND(CD)
CD L
GND(CT)
PB L
PB R
REC L
REC R
Connect to the prescribed system components
L R
SURR. SPEAKER
SPEA
20V
17.9


SX-P920 ONLY
MIC Assembly
(➡P 18)
1
4
MIC
GND
+5V
−5V
J15
1
4
CN15
14
14
AC2
C. GND
AC1
MAIN1
MAIN1
GND1
GND1
MAIN1
MAIN1
REAR
MAIN2
GND2
MAIN2
REAR
1
J13
1
CONNECT
Assembly
(➡P 20)
11
12
13
14
15
16
17
18
19
9
10
T1 POWER TRANSFORMER
⚠ ATS1378 (SX-P920)
ATS1374 (SX-P720)
240V
220-230V
0V
SUB POWER
Assembly
(AWZ3727
:SX-P920)
(AWZ3722
:SX-P720)
(➡P 19,P 20)
CN12
CN11
1
1
RY. CONT
FL AC1
FL AC2
+B
−B
GND
6
6
TP1
TP2
FU51
⚠
AEK-510
(SX-P920)
T1. 6A/250V
AEK-509
(SX-P720)
T1. 25A/250V
⚠
AC POWER CORD
ACG1019
AC220-230/240V
50/60Hz
L
R
SURR.
SPEAKER
⊕ ⊖ ⊖ ⊕
L
R
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)

1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
▭ : Signal voltage at (SX−P920 : 50W + 50W, SX−P720 : 40W + 40W, 8Ω) output (1kHz)
▭ : DC voltage (V) at no input signal
[a] and [b] in the circuit diagram describe the following :
a = SX−P920
b = SX−P720
None = SX−P920 and SX−P720
Value in ( ) is DC voltage at rated power.
⇦ mA : DC current at no input signal
mV : Signal voltage at FM 1kHz ±75kHz

4. OTHERS:
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.
▼ (RED) : TEST POINT
This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES (The underline indicates the switch position)

DISPLAY Assembly

S701	LD
S702	VCR/DAT
S703	PHONO
S704	TAPE
S705	TUNER
S706	CD
S709	POWER STANDBY/ON
S710	AI. A
S711	SUPER P. BASS (SX−P920 ONLY)
S712	AI. B
S713	AI. MEMORY
S714	AUDITION (SX−P920 ONLY)
S715	SUPER P. BASS (SX−P720 ONLY)
S1001	BAND
S1002	M. SCAN
S1003	CLOCK ADJ
S1005	MEMORY
S1006	SET
S1008	LOCAL
S1009	WAKE UP
S1010	FREQ/STATION
S1011	REC
S1030	TUNING JOG

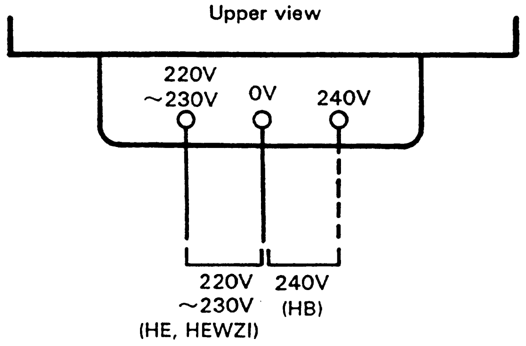
Line Voltage Selection (For HE, HB and HEWZI types)

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.

Power Transformer (T1)

Upper view

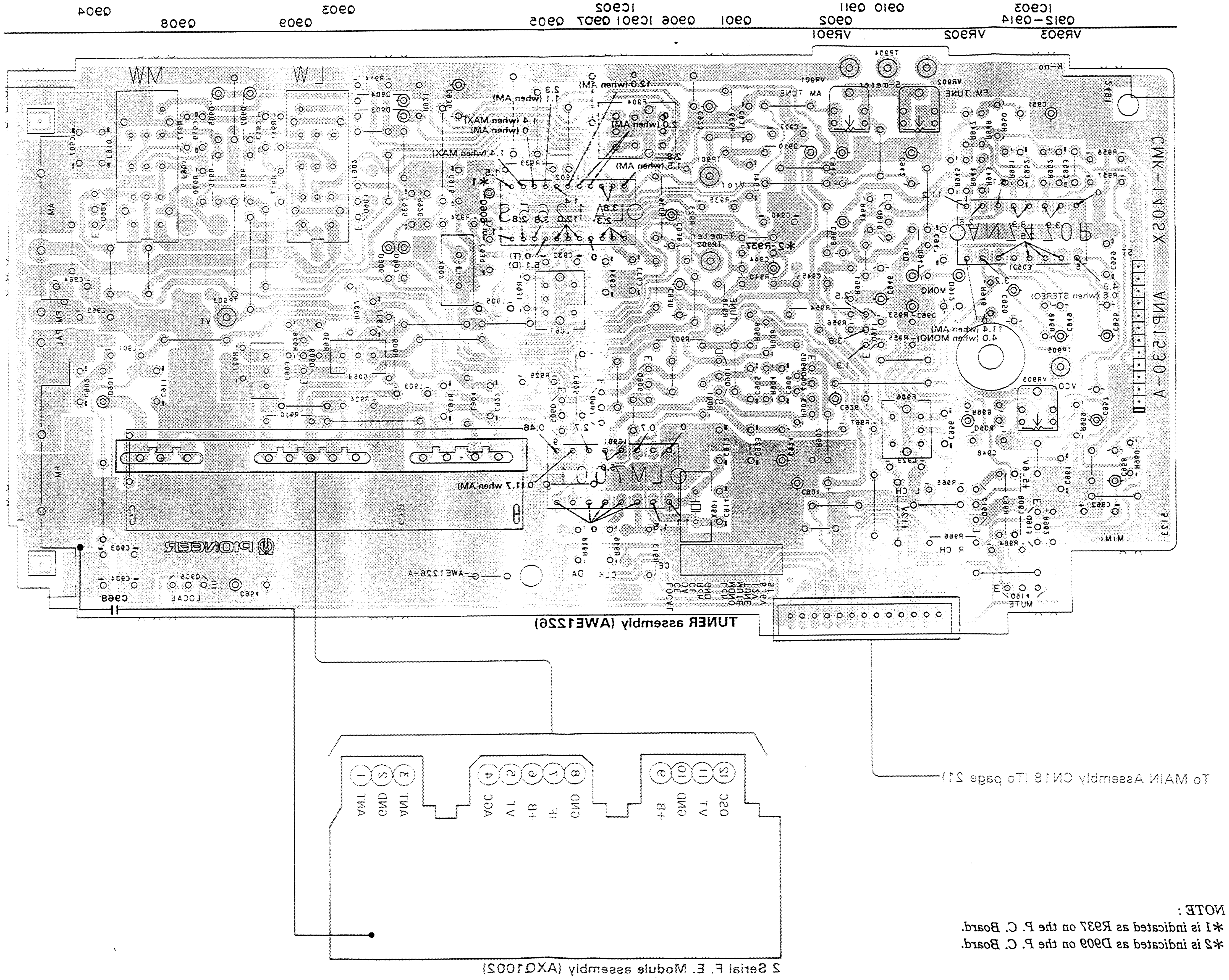

220V
~230V
0V
240V
220V
~230V
(HE, HEWZI)
240V
(HB)

4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX−193	220V label
AAX−192	240V label

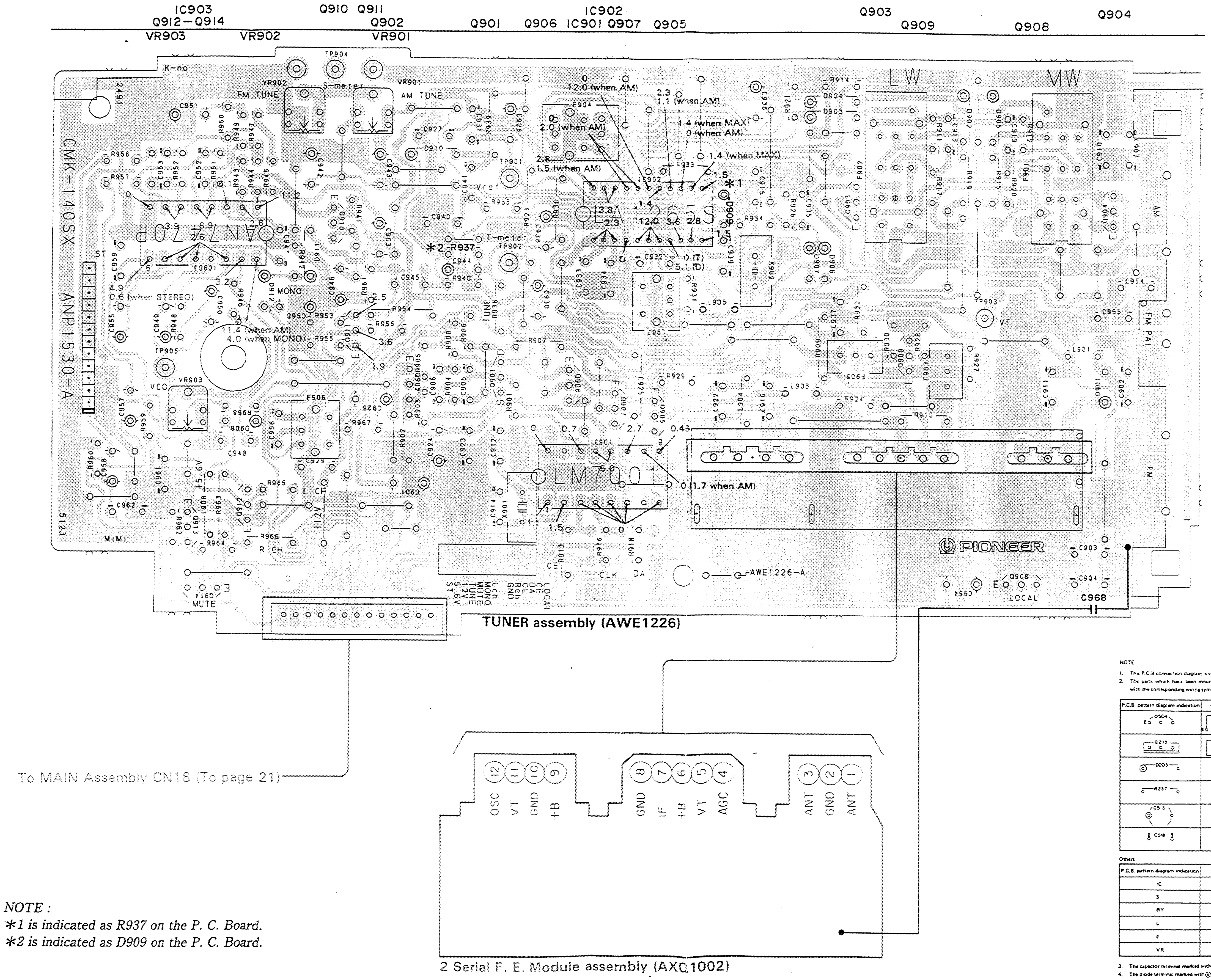
3.2 TUNER ASSEMBLY

This P. C. B. connection diagram is viewed from the foil side.


Q904
Q908
Q909
Q903
IC902
Q905 Q907 IC901 Q906 Q901
Q910 Q911
Q902
VR901
IC903
Q912–Q914
VR902 VR903
MW
LW
S-meter
T-meter
AM TUNE
FM TUNE
CMK-1405X
ANP1530-A
MONO
VCO
L CH
R CH
MUTE
LOCAL
C968
PIONEER
AWE1226-A
TUNER assembly (AWE1226)
To MAIN Assembly CN18 (To page 21)
ANT
GND
ANT
AGC
A.T.
+B
IF
GND
+B
GND
A.T.
OSC
2 Serial F. E. Module assembly (AXQ1002)

NOTE :
*1 is indicated as R937 on the P. C. Board.
*2 is indicated as D909 on the P. C. Board.

This P. C. B connection diagram is viewed from the parts mounted side.


IC903
Q912–Q914
VR903
VR902
Q910 Q911
Q902
VR901
Q901
Q906
IC902
IC901 Q907
Q905
Q903
Q909
Q908
Q904
CMK-140SX
ANP1530-A
FM TUNE
AM TUNE
S-meter
K-no
LW
MW
12.0 (when AM)
2.0 (when AM)
1.5 (when AM)
1.1 (when AM)
1.4 (when MAX)
0 (when AM)
1.4 (when MAX)
*1
*2 R937
4.9
0.6 (when STEREO)
11.4 (when AM)
4.0 (when MONO)
MONO
VCO
VR903
TP904
TP905
L CH
R CH
MUTE
+5.6V
+12V
LM7001
1.7 when AM)
VT
AM
FM PAI
FM
LOCAL
C968
PIONEER
AWE1226-A
CLK
DA
ST
5.6V
12V
TUNE
MUTE
MONO
LCH
CE
CL
DA
GND
LOCAL
OSC
VT
GND
+B
GND
IF
+B
VT
AGC
ANT
GND
ANT
12
11
10
9
8
7
6
5
4
3
2
1

TUNER assembly (AWE1226)

To MAIN Assembly CN18 (To page 21)

2 Serial F. E. Module assembly (AXQ1002)

NOTE :
*1 is indicated as R937 on the P. C. Board.
*2 is indicated as D909 on the P. C. Board.

NOTE

1. The P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

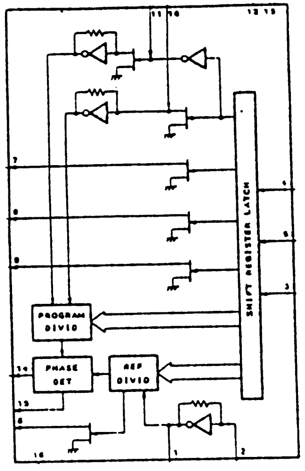
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

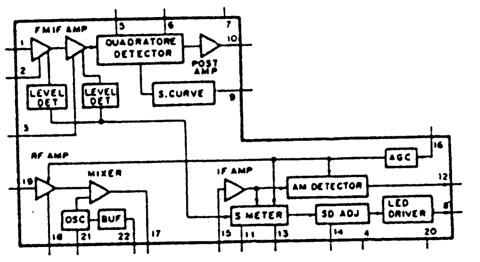
IC901 LM7001


PROGRAM DIVID
PHASE DET
REF DIVID
SHIFT REGISTER LATCH

IC901 (LM7001)

Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 (1.7 when AM)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6	0	14	0.7
7	—	15	—
8	0	16	0

IC902 LA1265S

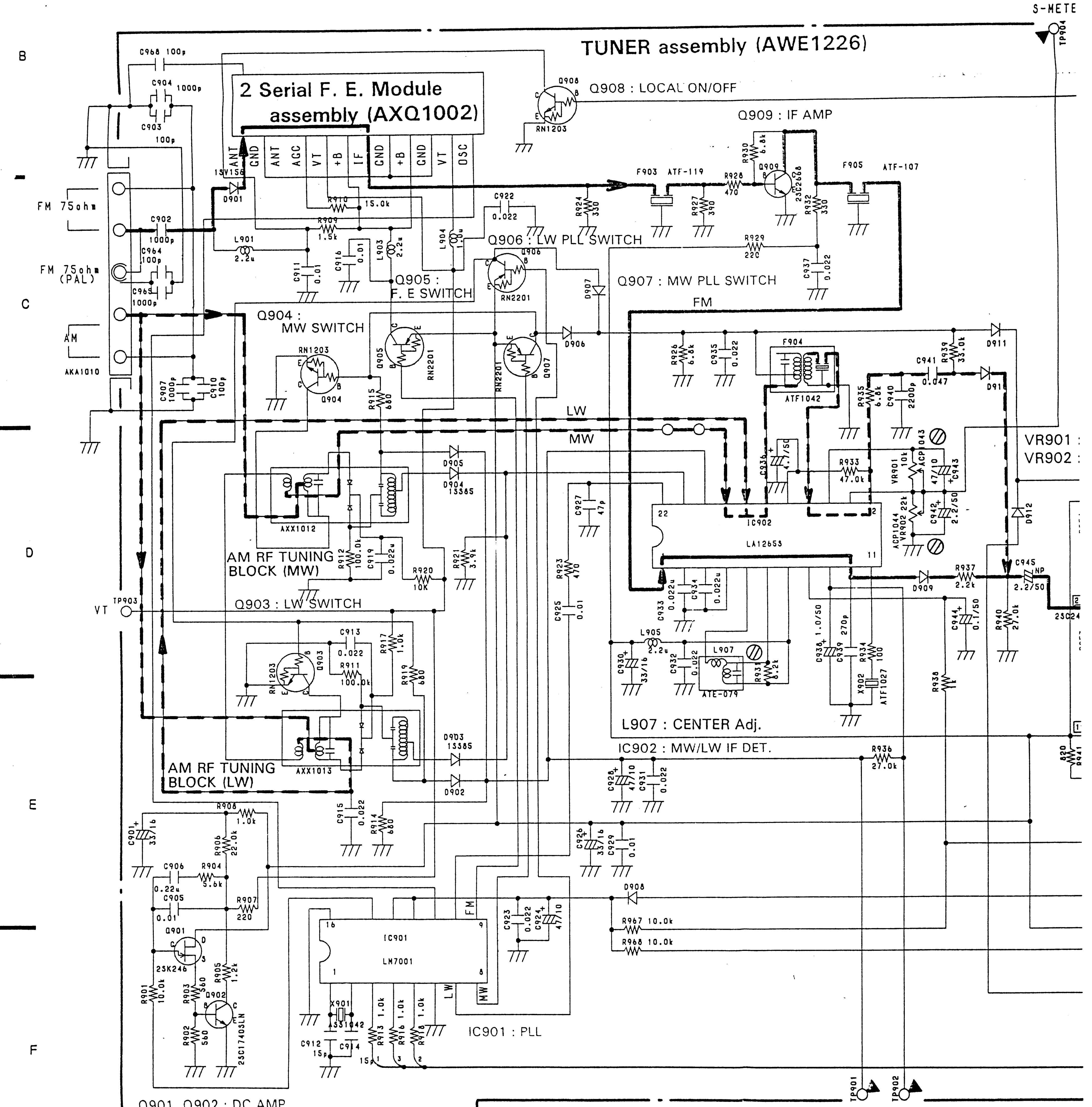

FM IF AMP
QUADRATURE DETECTOR
POST AMP
LEVEL DET
LEVEL DET
S.CURVE
RF AMP
MIXER
OSC
BUF
IF AMP
AM DETECTOR
AGC
S METER
SD ADJ
LED DRIVER

IC902 (LA1265S)

Pin No.	Voltage	Pin No.	Voltage	Pin No.
1	2.3	10	2.8	17
2	2.3	11	1.5	
3	2.3	12	1.5	18
4	0	13	1.4 (when MAX)	
5	12.0	14	1.4 (when MAX)	19
6	12.0		0 (when AM)	
7	12.0	15	2.3	20
8	0 (T)		1.1 (when AM)	21
	5.1 (D)	16	1.4	22
9	3.8			

NOTE :
(T) when TUNE IND. is ON, (D) when TUNE IND. is OFF.

TUNER assembly (AWE1226)

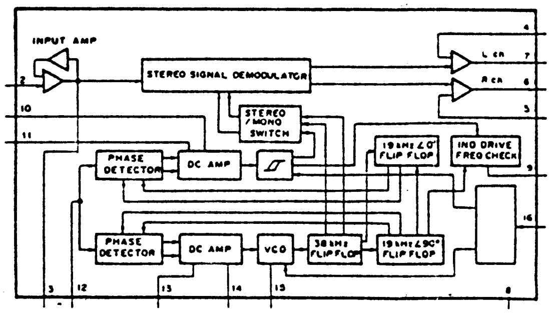

S-METE
TP904
2 Serial F. E. Module assembly (AXQ1002)
ANT
GND
ANT
AGC
VT
+B
IF
GND
+B
GND
VT
OSC
Q908 : LOCAL ON/OFF
Q909 : IF AMP
C968 100p
C904 1000p
C903 100p
1SV156
D901
FM 75ohm
FM 75ohm (PAL)
AM
AKA1010
C902 1000p
C964 100p
C965 1000p
L901 2.2u
R910 15.0k
R909 1.5k
C911 0.01
C916 0.01
L903 2.2u
L904 1.0u
C922 0.022
F903 ATF-119
R924 330
R927 390
R928 470
R930 6.8k
2SC2668
R932 330
F905 ATF-107
Q906 : LW PLL SWITCH
Q905 : F. E SWITCH
Q907 : MW PLL SWITCH
R929 220
C937 0.022
RN2201
D907
FM
Q904 : MW SWITCH
RN1203
R915 680
D906
R926 6.8k
C935 0.022
F904
ATF1042
R939 33.0k
D911
C941 0.047
R935 6.8k
C940 2200p
C907 1000p
C910 100p
LW
MW
D905
D904 1SS85
AXX1012
C936 4.7/50
ACP1043
R933 47.0k
VR901 10k
C943 47/10
VR901
VR902
C927 47p
IC902
LA1265S
ACP1044 VR902 22k
C942 2.2/50
D912
AM RF TUNING BLOCK (MW)
R912 100.0k
C919 0.022u
R920 10K
R921 3.9k
R923 470
C933 0.022u
C934 0.022u
D909
R937 2.2k
C945 NP 2.2/50
VT
TP903
Q903 : LW SWITCH
C925 0.01
C938 1.0/50
C939 270p
R934 100
C944 0.1/50
R940 27.0k
2SC24
C913 0.022
R917 1.0k
R911 100.0k
R919 680
L905 2.2u
C930 33/16
C932 0.022
L907
ATE-079
R931 8.2k
X902 ATF1027
R938
L907 : CENTER Adj.
D903 1SS85
AXX1013
AM RF TUNING BLOCK (LW)
D902
IC902 : MW/LW IF DET.
R936 27.0k
C928 47/10
C931 0.022
R941 820
R908 1.0k
C901 33/16
R906 22.0k
C915 0.022
R914 680
C926 33/16
C929 0.01
C906 0.22u
R904 5.6k
C905 0.01
R907 220
D908
Q901
2SK246
R905 1.2k
C923 0.022
C924 47/10
IC901
LM7001
FM
LW
MW
R967 10.0k
R968 10.0k
R901 10.0k
R903 560
Q902
R902 560
2SC1740SLN
X901 AS31042
C912 15p
C914
R913 1.0k
R916 1.0k
R918 1.0k
IC901 : PLL
TP901
TP902
VREF
T-METER
Q901, Q902 : DC AMP

NOTE :
The TUNER assemblies of SX-P920 and SX-P720 types are the same.

Voltage	Pin No.	Voltage
2.8	17	0
1.5		12.0 (when AM)
1.5	18	0
1.4 (when MAX)		2.0 (when AM)
1.4 (when MAX)	19	0
0 (when AM)		2.0 (when AM)
2.3	20	3.8
1.1 (when AM)	21	3.8
1.4	22	2.8
		1.5 (when AM)

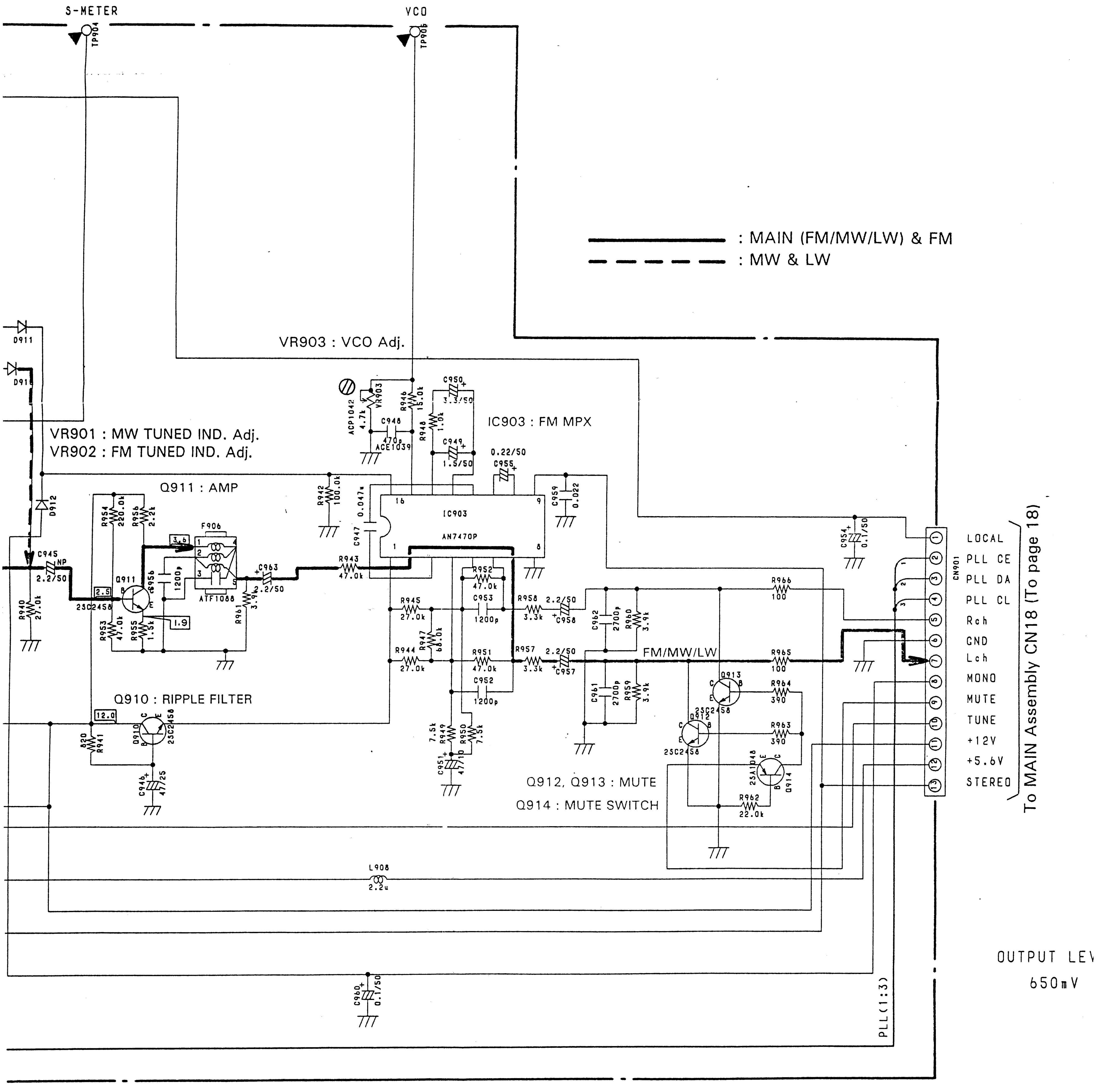
n TUNE IND. is OFF.

IC903 AN7470P

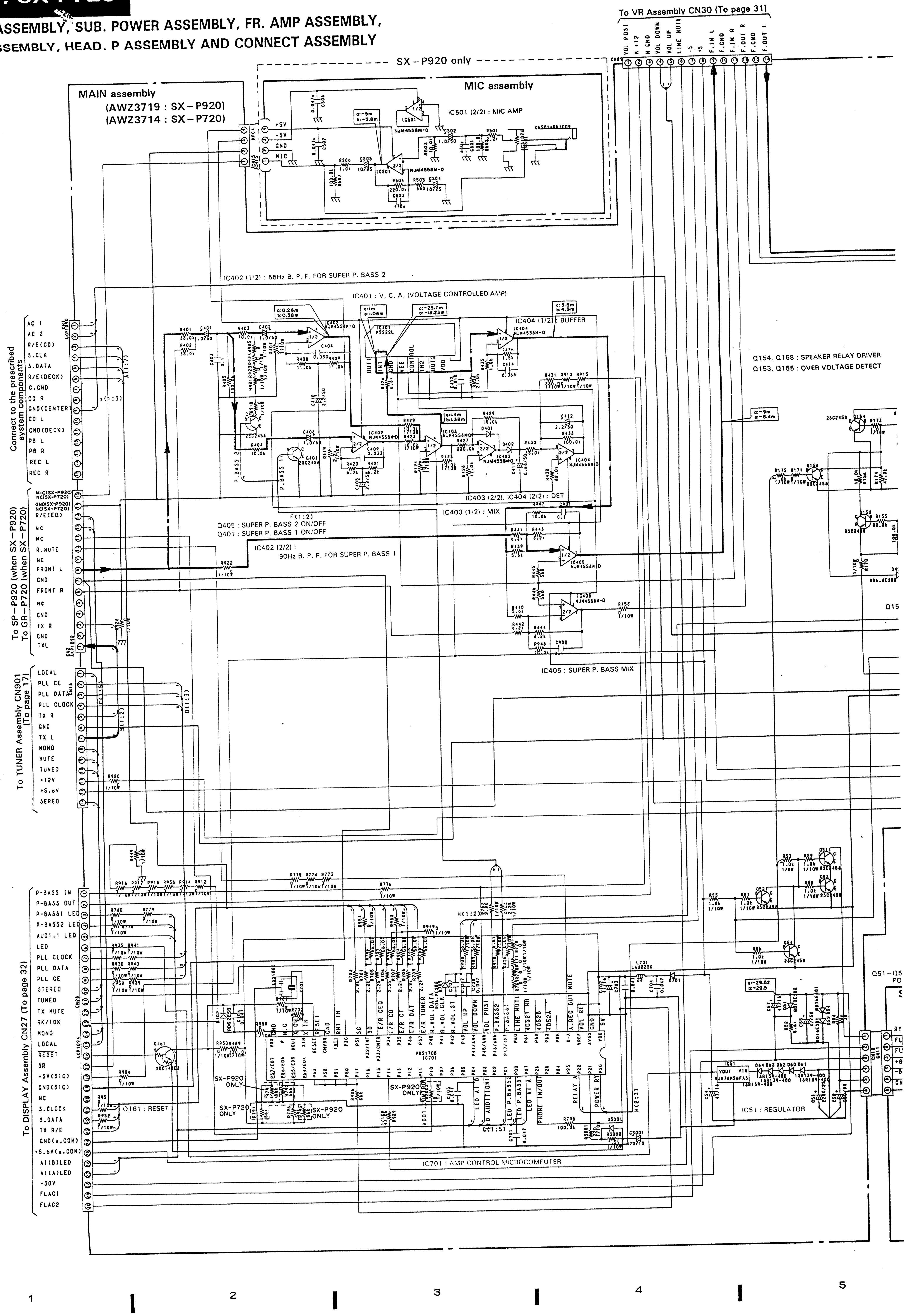

INPUT AMP
STEREO SIGNAL DEMODULATOR
STEREO /MONO SWITCH
PHASE DETECTOR
DC AMP
19kHz ∠0° FLIP FLOP
IND DRIVE FREQ CHECK
PHASE DETECTOR
DC AMP
VCO
38kHz FLIP FLOP
19kHz ∠90° FLIP FLOP
L ch
R ch
2
10
11
3
12
13
14
15
8
4
7
6
5
9
16

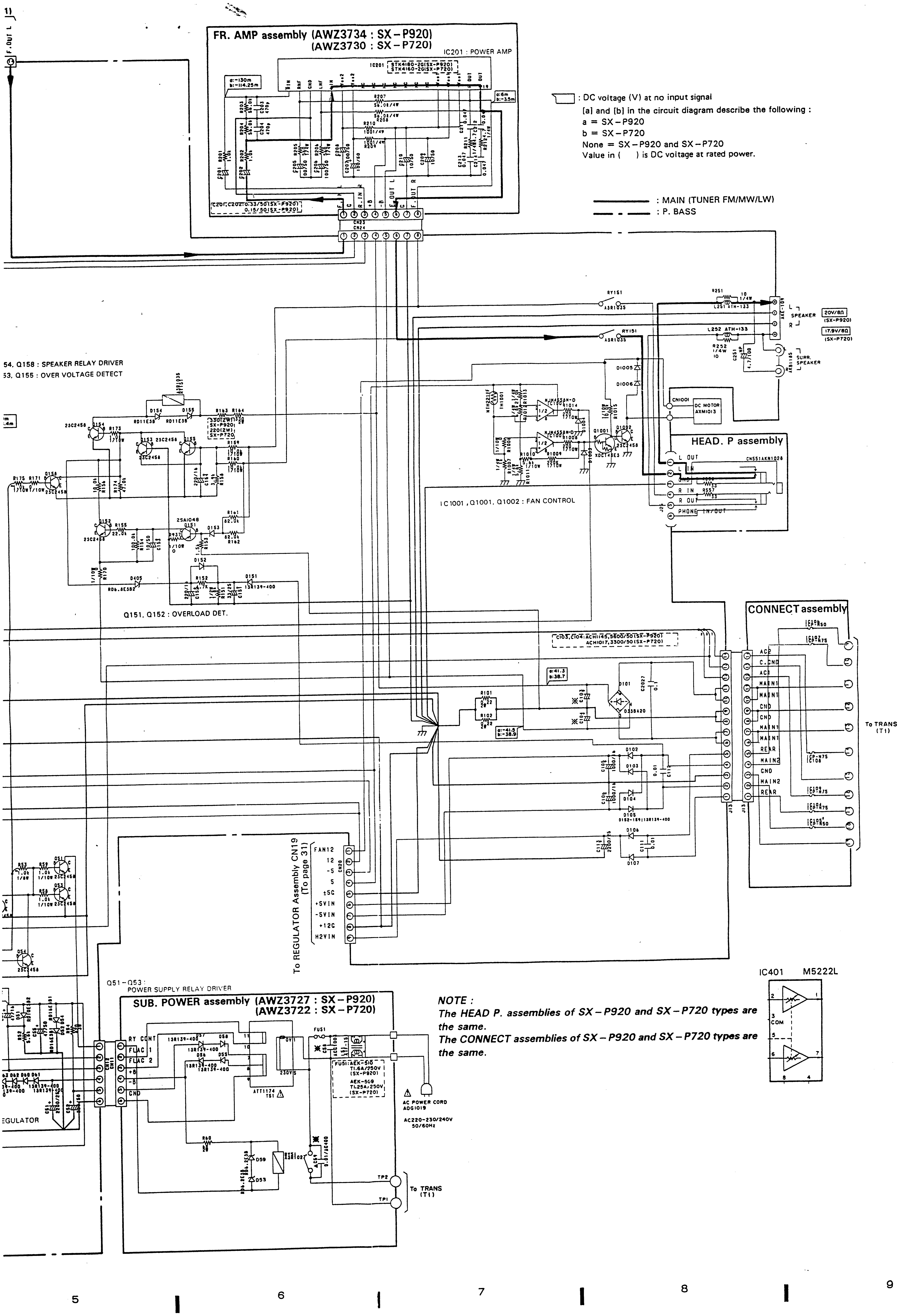
IC903 (AN7470P)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6 (when STEREO)	16	0
3	6.1				11.4 (when AM)
4	8.9	10	2.6		
5	8.9	11	2.6		4.0 (when MONO)
6	3.9	12	2.6		
7	3.9	13			
8	0	14	2.6		


S-METER
TP904
VCO
TP906
: MAIN (FM/MW/LW) & FM
: MW & LW
D911
D916
VR903 : VCO Adj.
VR901 : MW TUNED IND. Adj.
VR902 : FM TUNED IND. Adj.
ACP1042
4.7k
VR903
C948
470p
ACE1039
R946
15.0k
R948
1.0k
C950
3.3/50
C949
1.5/50
IC903 : FM MPX
0.22/50
C955
Q911 : AMP
D912
R954
220.0k
R956
2.2k
F906
3.6
1
2
3
4
5
1200p
C956
ATF1088
C945
NP
2.2/50
Q911
2.5
2SC2458
1.9
R940
27.0k
R953
47.0k
R955
1.5k
C963
2.2/50
R961
3.9k
R943
47.0k
R942
100.0k
C947
0.047u
IC903
AN7470P
16
9
1
8
C959
0.022
C954
0.1/50
R952
47.0k
C953
1200p
R945
27.0k
R947
68.0k
R944
27.0k
R951
47.0k
C952
1200p
R958
3.3k
2.2/50
C958
R957
3.3k
2.2/50
C957
C962
2700p
R960
3.9k
C961
2700p
R959
3.9k
FM/MW/LW
R966
100
R965
100
Q913
2SC2458
R964
390
Q912
2SC2458
R963
390
2SA1048
Q914
R962
22.0k
Q910 : RIPPLE FILTER
12.0
Q910
2SC2458
820
R941
C946
47/25
7.5k
R949
R950
7.5k
C951
47/10
Q912, Q913 : MUTE
Q914 : MUTE SWITCH
L908
2.2u
C960
0.1/50
PLL(1:3)
CN901
1 LOCAL
2 PLL CE
3 PLL DA
4 PLL CL
5 Rch
6 GND
7 Lch
8 MONO
9 MUTE
10 TUNE
11 +12V
12 +5.6V
13 STEREO
To MAIN Assembly CN18 (To page 18)
OUTPUT LEV
650mV

3 MAIN ASSEMBLY, SUB. POWER ASSEMBLY, FR. AMP ASSEMBLY, MIC ASSEMBLY, HEAD. P ASSEMBLY AND CONNECT ASSEMBLY


To VR Assembly CN30 (To page 31)
VOL POSI
K +12
K GND
VOL DOWN
VOL UP
LINE MUTE
-5
+5
F.IN L
F.GND
F.IN R
F.OUT R
F.GND
F.OUT L
SX-P920 only
MIC assembly
MAIN assembly
(AWZ3719 : SX-P920)
(AWZ3714 : SX-P720)
IC501 (2/2) : MIC AMP
NJM4558M-D
CN501AKN1009
+5V
-5V
GND
MIC
IC402 (1/2) : 55Hz B. P. F. FOR SUPER P. BASS 2
IC401 : V. C. A. (VOLTAGE CONTROLLED AMP)
IC401 HS222L
IC404 (1/2) : BUFFER
IC403 (2/2), IC404 (2/2) : DET
IC403 (1/2) : MIX
Q405 : SUPER P. BASS 2 ON/OFF
Q401 : SUPER P. BASS 1 ON/OFF
IC402 (2/2) :
90Hz B. P. F. FOR SUPER P. BASS 1
IC405 : SUPER P. BASS MIX
Q154, Q158 : SPEAKER RELAY DRIVER
Q153, Q155 : OVER VOLTAGE DETECT
Connect to the prescribed system components
AC 1
AC 2
R/E(CD)
S.CLK
S.DATA
R/E(DECK)
C.GND
CD R
GND(CENTER)
CD L
GND(DECK)
PB L
PB R
REC L
REC R
To SP-P920 (when SX-P920)
To GR-P720 (when SX-P720)
MIC(SX-P920)
NC(SX-P720)
GND(SX-P920)
NC(SX-P720)
R/E(EQ)
NC
R.MUTE
FRONT L
GND
FRONT R
TX R
TXL
To TUNER Assembly CN901 (To page 17)
LOCAL
PLL CE
PLL DATA
PLL CLOCK
TX R
GND
TX L
MONO
MUTE
TUNED
+12V
+5.6V
SEREO
To DISPLAY Assembly CN27 (To page 32)
P-BASS IN
P-BASS OUT
P-BASS1 LED
P-BASS2 LED
AUDI.1 LED
LED
PLL CLOCK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9K/10K
MONO
LOCAL
RESET
SR
+5V(SIC)
GND(SIC)
NC
S.CLOCK
S.DATA
TX R/E
GND(u.COM)
+5.6V(u.COM)
AI(B)LED
AI(A)LED
-30V
FLAC1
FLAC2
Q161 : RESET
SX-P920 ONLY
SX-P720 ONLY
PD5170B
IC701
IC701 : AMP CONTROL MICROCOMPUTER
L701 LAU220K
IC51 : REGULATOR
NJM78M56FA
Q51-Q5
PO

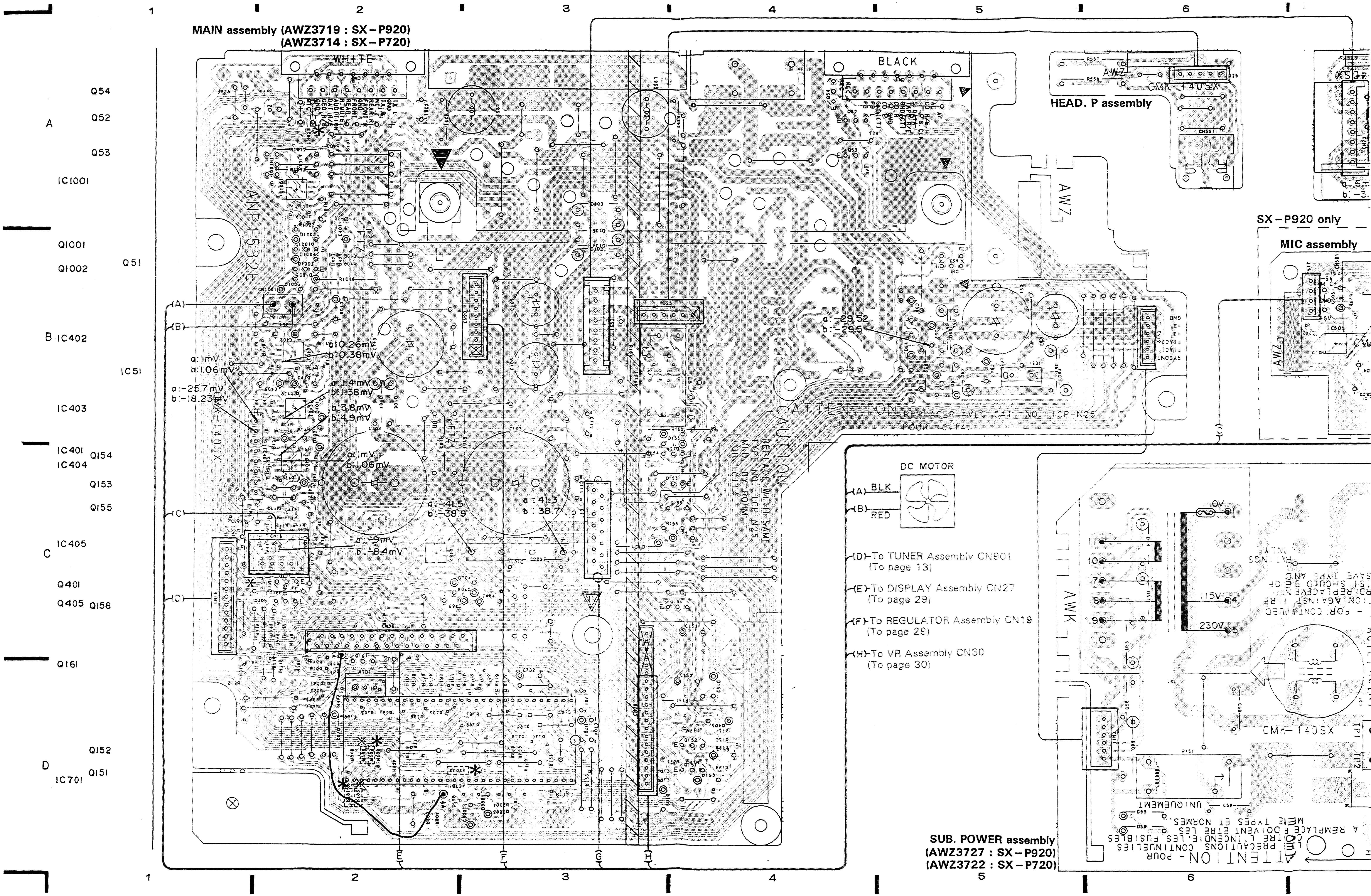

FR. AMP assembly (AWZ3734 : SX-P920)
(AWZ3730 : SX-P720)
IC201 : POWER AMP
IC201 STK4160-2G(SX-P920) STK4160-2G(SX-P720)
F. OUT L
CN23
CN24
RY151
A5R1035
R251 10 1/4W
L251 ATH-133
L252 ATH-133
R252 1/4W 10
AKE-109
SPEAKER
L
R
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)
AKB1185
SURR. SPEAKER
54, Q158 : SPEAKER RELAY DRIVER
53, Q155 : OVER VOLTAGE DETECT
D1005
D1006
CN1001
DC MOTOR AXM1013
Q1001
Q1002
NJM4558N-D
IC1001
HEAD. P assembly
L OUT
L IN
GND
R IN
R OUT
PHONE IN/OUT
CNS51AKN1028
IC1001, Q1001, Q1002 : FAN CONTROL
Q151, Q152 : OVERLOAD DET.
CONNECT assembly
C103, C104: ACH1145, 5600/50(SX-P920) ACH1017, 3300/50(SX-P720)
a:41.3 b:38.7
a:-41.5 b:-38.9
D101
D3SB20
D102
D103
D104
D105
D106
D107
D152-159 : 13R139-400
AC2
C.GND
AC1
MAIN1
GND
REAR
MAIN2
J13
To TRANS (T1)
To REGULATOR Assembly CN19 (To page 31)
CN20
FAN12
12
-5
5
±5C
+5VIN
-5VIN
+12C
H2VIN
Q51-Q53 : POWER SUPPLY RELAY DRIVER
SUB. POWER assembly (AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
CN18
RY CONT
FLAC 1
FLAC 2
+B
-B
GND
13R139-400
D57
D58
D56
D55
ATT1174 TS1
230V S
FUS1
FUS1: AEK-510 T1.6A/250V (SX-P920)
AEK-509 T1.25A/250V (SX-P720)
AC POWER CORD ADG1019
AC220-230/240V 50/60Hz
R60
D59
D53
RY102
TP2
TP1
To TRANS (T1)
EGULATOR
IC401 M5222L
COM

: DC voltage (V) at no input signal

[a] and [b] in the circuit diagram describe the following :
a = SX-P920
b = SX-P720
None = SX-P920 and SX-P720
Value in ( ) is DC voltage at rated power.

—— : MAIN (TUNER FM/MW/LW)
— · — : P. BASS

NOTE :
The HEAD P. assemblies of SX-P920 and SX-P720 types are the same.
The CONNECT assemblies of SX-P920 and SX-P720 types are the same.


MAIN assembly (AWZ3719 : SX-P920)
(AWZ3714 : SX-P720)
HEAD. P assembly
SX-P920 only
MIC assembly
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
1
2
3
4
5
6
A
B
C
D
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
IC404
Q154
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
IC701
Q151
WHITE
BLACK
ANP1532E
CMK-140SX
AWZ
AWK
DC MOTOR
(A) BLK
(B) RED
(D) To TUNER Assembly CN901 (To page 13)
(E) To DISPLAY Assembly CN27 (To page 29)
(F) To REGULATOR Assembly CN19 (To page 29)
(H) To VR Assembly CN30 (To page 30)
CAUTION
REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC114.
ATTENTION
REPLACER AVEC CAT. NO. ICP-N25 POUR IC114.
a:0.26mV
b:0.38mV
a:1mV
b:1.06mV
a:-25.7mV
b:-18.23mV
a:1.4mV
b:1.38mV
a:3.8mV
b:4.9mV
a:1mV
b:1.06mV
a:-41.5
b:-38.9
a:41.3
b:38.7
a:-9mV
b:-8.4mV
a:-29.52
b:-29.5
0V
115V
230V
1
4
5
7
8
9
10
11
TP1
TP2

SX-P920, SX-P720

NOTE

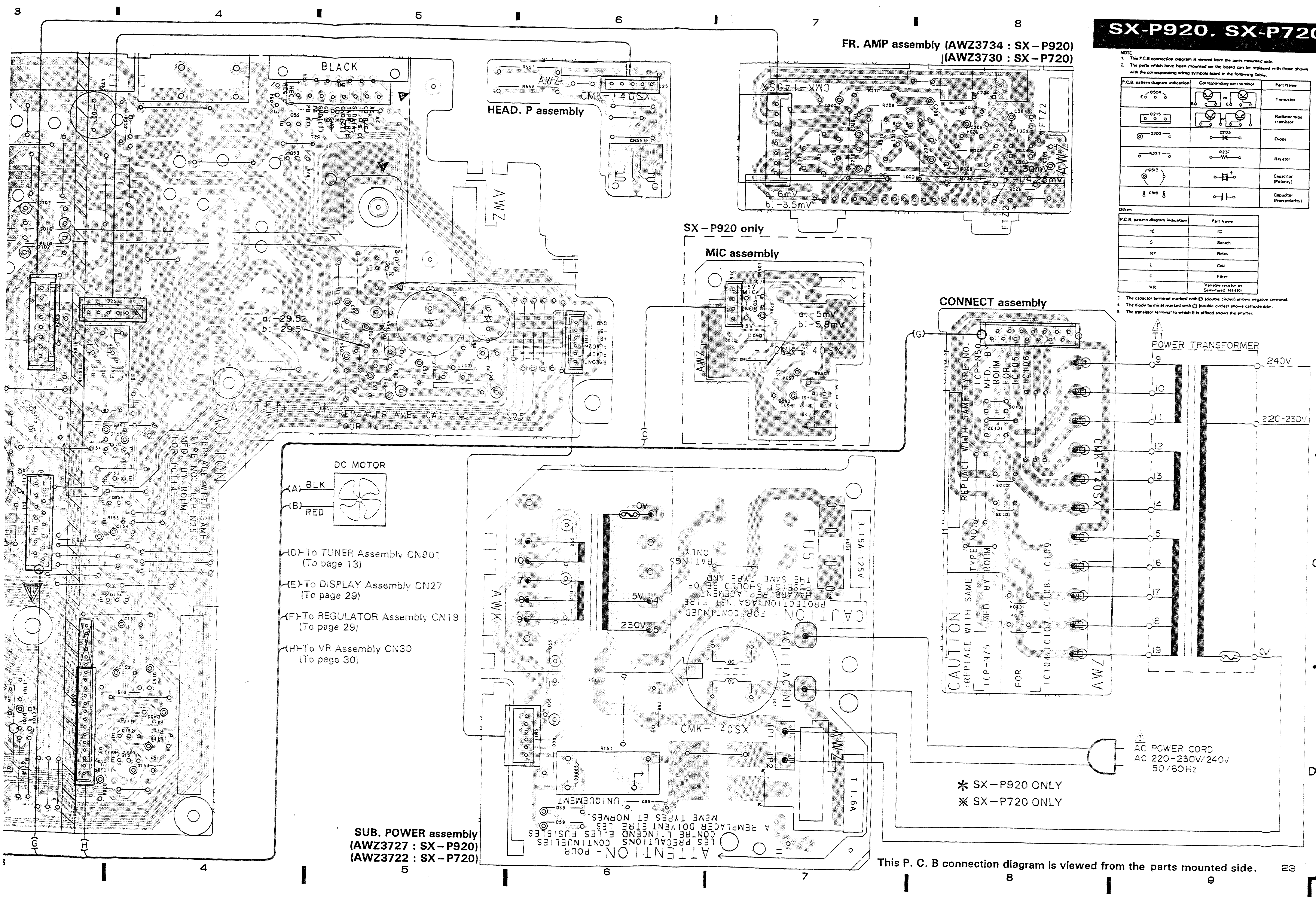
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
E 0504	E or E	Transistor
0215	or	Radiator type transistor
0203	0203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

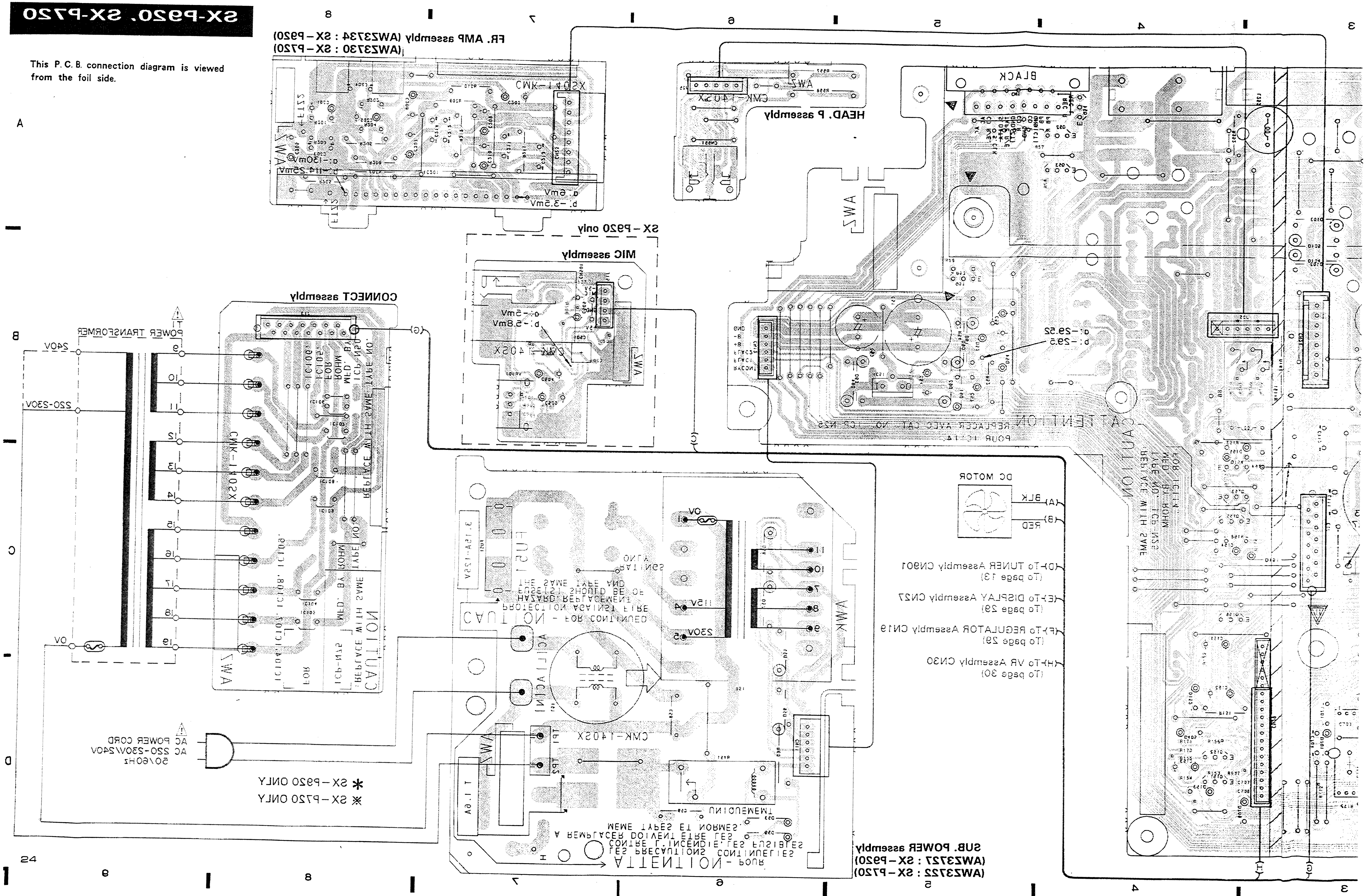
3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.


3
4
5
6
7
8
A
B
C
D
9
BLACK
HEAD. P assembly
AWZ
CMK-140SX
CN551
FR. AMP assembly (AWZ3734 : SX-P920)
(AWZ3730 : SX-P720)
a: -130mV
b: -114.25mV
a: -6mV
b: -3.5mV
FTZ2
SX-P920 only
MIC assembly
a: -5mV
b: -5.8mV
a: -29.52
b: -29.5
ATTENTION: REPLACER AVEC CAT. NO. ICP-N25 POUR IC114.
CAUTION REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC114.
DC MOTOR
(A) BLK
(B) RED
(D) To TUNER Assembly CN901 (To page 13)
(E) To DISPLAY Assembly CN27 (To page 29)
(F) To REGULATOR Assembly CN19 (To page 29)
(H) To VR Assembly CN30 (To page 30)
(C)
(G)
CONNECT assembly
REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM FOR IC105, IC106.
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N75 MFD. BY ROHM FOR IC104, IC107, IC108, IC109.
T1 POWER TRANSFORMER
240V
220-230V
0V
AC POWER CORD
AC 220-230V/240V
50/60Hz
✱ SX-P920 ONLY
※ SX-P720 ONLY
AWK
0V
115V
230V
FU51
3.15A-125V
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
AC(L)
AC(N)
TP1
TP2
T1.6A
UNIQUEMENT
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)

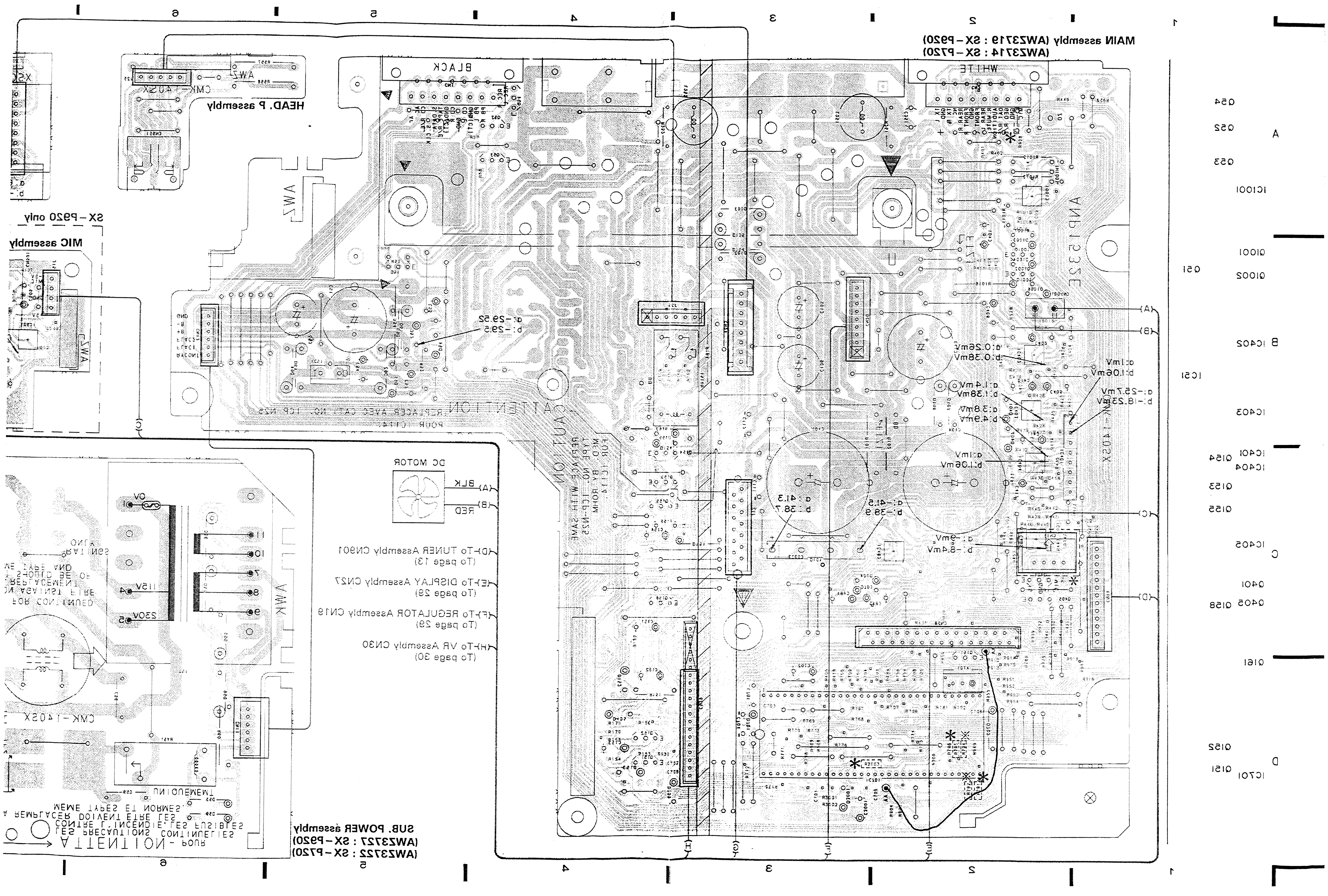
This P. C. B connection diagram is viewed from the parts mounted side.

SX-P920, SX-P720

This P.C.B. connection diagram is viewed from the foil side.


8
7
6
5
4
3
A
B
C
D
FR. AMP assembly (AWZ3734 : SX-P920)
(AWZ3730 : SX-P720)
CMK-1405X
AWZ
a: -130mV
b: -114.25mV
a: 6mV
b: -3.5mV
HEAD. P assembly
CMK-1405X
AWZ
SX-P920 only
MIC assembly
a: -5mV
b: -5.8mV
CMK-1405X
AWZ
CONNECT assembly
POWER TRANSFORMER
240V
220-230V
0V
9
10
11
12
13
14
15
16
17
18
19
(G)
(C)
CAUTION
REPLACE WITH SAME TYPE NO. ICP-N20
MFD. BY ROHM FOR IC101, IC102, IC103, IC104
CAUTION
REPLACE WITH SAME TYPE NO. ICP-N20 MFD. BY ROHM FOR IC105, IC106, IC107, IC108
CMK-1405X
AWZ
BLACK
a: -29.52
b: -29.5
AWZ
ATTENTION
REPLACER AVEC CAT. NO. ICP N25 POUR IC114.
CAUTION
REPLACE WITH SAME TYPE NO. ICP N25 MFD. BY ROHM FOR IC114
DC MOTOR
BLK
RED
(A)
(B)
(D)-To TUNER Assembly CN901
(To page 13)
(E)-To DISPLAY Assembly CN27
(To page 29)
(F)-To REGULATOR Assembly CN19
(To page 29)
(H)-To VR Assembly CN30
(To page 30)
FUSE
T 3.15A-125V
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
0V
115V
230V
1
4
5
11
10
7
8
9
AWK
CMK-1405X
AWZ
T 1.6A
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES UNIQUEMENT.
AC POWER CORD
AC 220-230V/240V
50/60Hz
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
(I)
(G)

✱ SX-P920 ONLY
※ SX-P720 ONLY

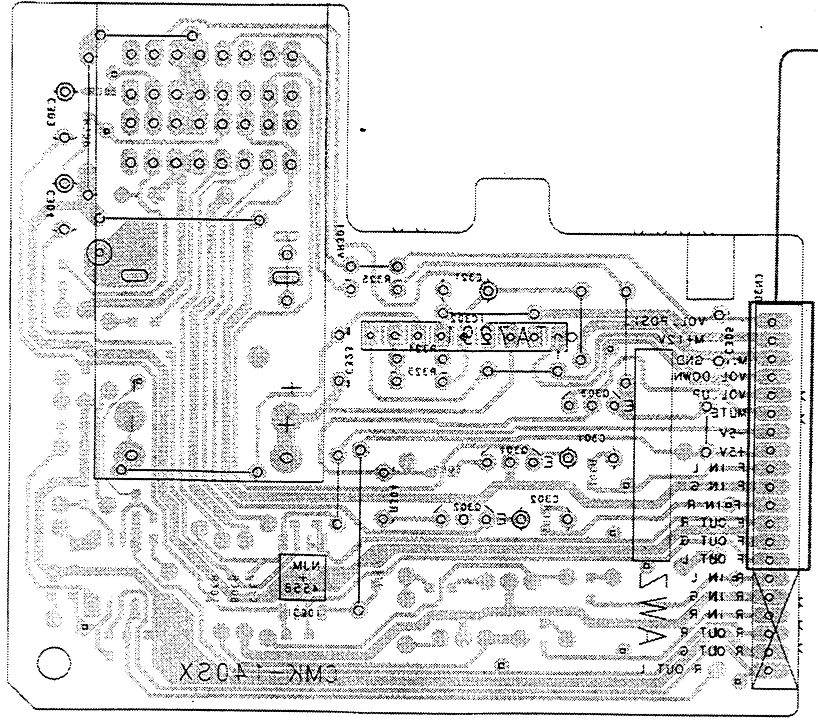

MAIN assembly (AWZ3719 : SX-P920)
(AWZ3714 : SX-P720)
HEAD. P assembly
SX-P920 only
MIC assembly
SUB. POWER assembly
(AWZ3727 : SX-P920)
(AWZ3722 : SX-P720)
BLACK
WHITE
DC MOTOR
BLK
RED
(D)-To TUNER Assembly CN901
(To page 13)
(E)-To DISPLAY Assembly CN27
(To page 29)
(F)-To REGULATOR Assembly CN19
(To page 29)
(H)-To VR Assembly CN30
(To page 30)
a:-29.52
b:-29.5
a:0.26mV
b:0.38mV
a:1mV
b:1.06mV
a:1.4mV
b:1.38mV
a:-25.7mV
b:-18.23mV
a:3.8mV
b:4.9mV
a:1mV
b:1.06mV
a:41.3
b:38.7
a:-41.5
b:-38.9
a:-9mV
b:-8.4mV
ATTENTION: REPLACER AVEC CAT. NO. ICP-N25 POUR IC114
CAUTION: FOR IC114 REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES
0V
115V
230V
AWZ
AWK
CMK-140SX
APJ1532E
A
B
C
D
1
2
3
4
5
6
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
IC404
Q154
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
Q151
IC701

3.4 DISPLAY ASSEMBLY, VR ASSEMBLY AND REGULATOR ASSEMBLY

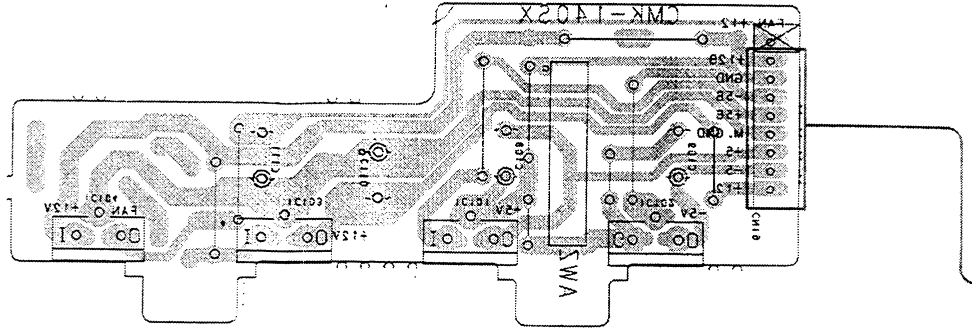
✱ SX-P920 ONLY
※ SX-P720 ONLY

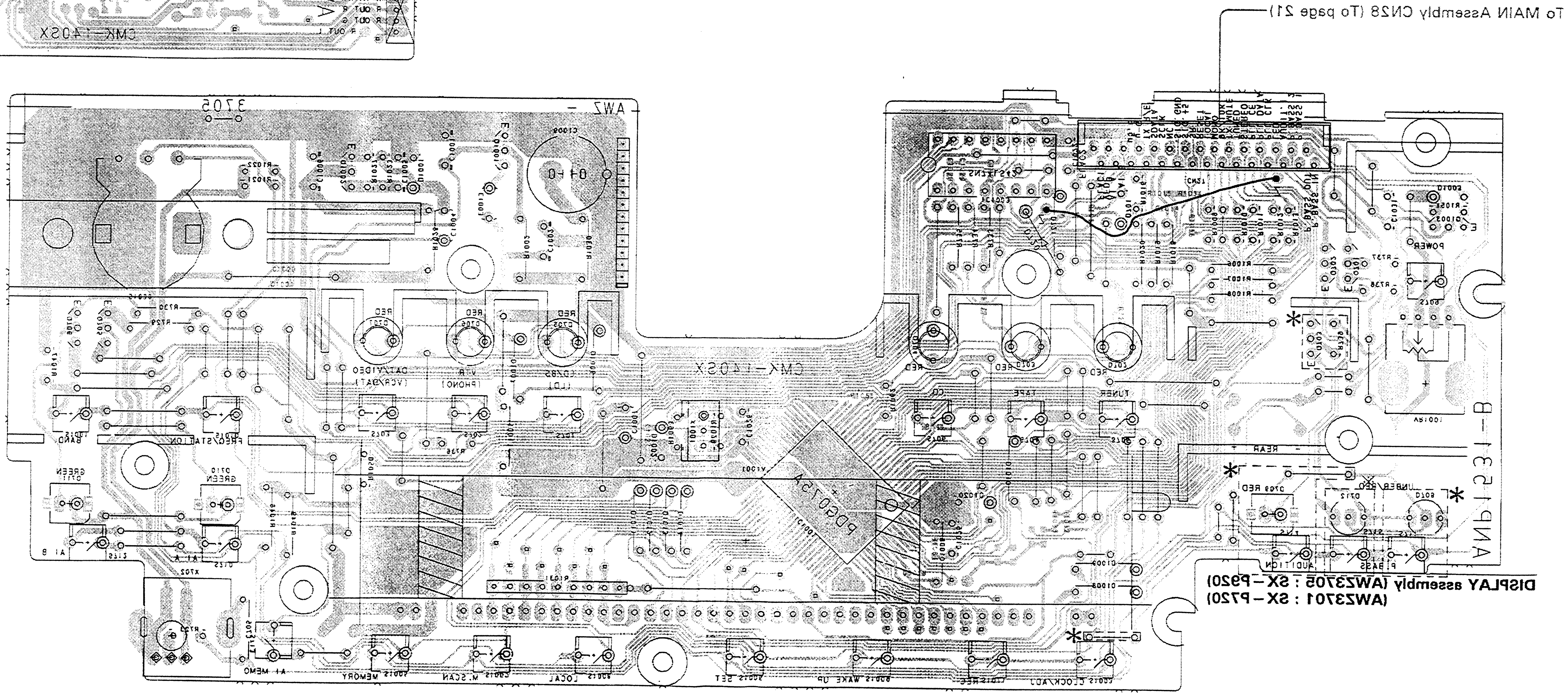
VR assembly (AWZ3708)

This P.C.B. connection diagram is viewed from the foil side.


To MAIN Assembly CN29 (To page 21)
VOL POS1
+12V
GND
VOL DOWN
VOL UP
MUTE
-5V
+5V
NJM 4558
CMK-140SX

REGULATOR assembly (AWZ4009)


To MAIN Assembly CN20 (To page 21)
CMK-140SX
+12V
FAN
+5V
-5V
GND

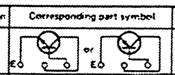
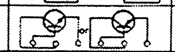
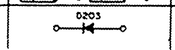
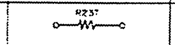
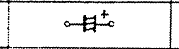
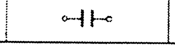

To MAIN Assembly CN28 (To page 21)
AWZ
3705
CMK-140SX
PDG012A
ANP1531-B
DAT/VIDEO
(VCR/DAT)
V-R
(PHONO)
CD/LD
RED
GREEN
CD
TAPE
TUNER
POWER
REAR
BAND
FREQ/STATION
A1 B
A1 MEMO
MEMORY
M.SCAN
LOCAL
SET
WAKE UP
CLOCK/ADJ
AUDITION
P.BASS
✱
※

DISPLAY assembly (AWZ3705 : SX-P920)
(AWZ3701 : SX-P720)

Q705 Q706 Q1002 Q1001 IC1001 IC1003 Q701–Q703 Q1003 Q1010 VR1001

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q304 E		Transistor
Q215		Radiator type transistor
D203		Diode
R237		Resistor
C513		Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

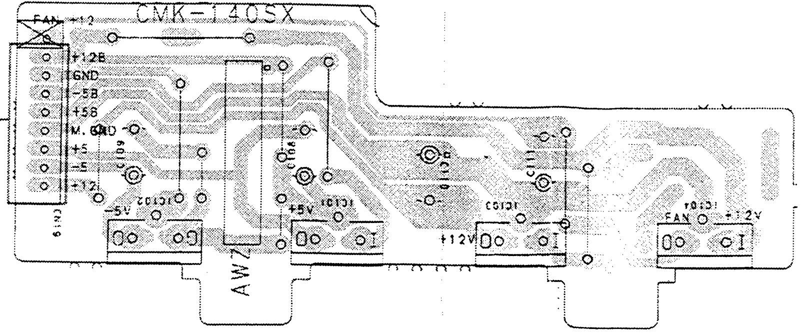
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

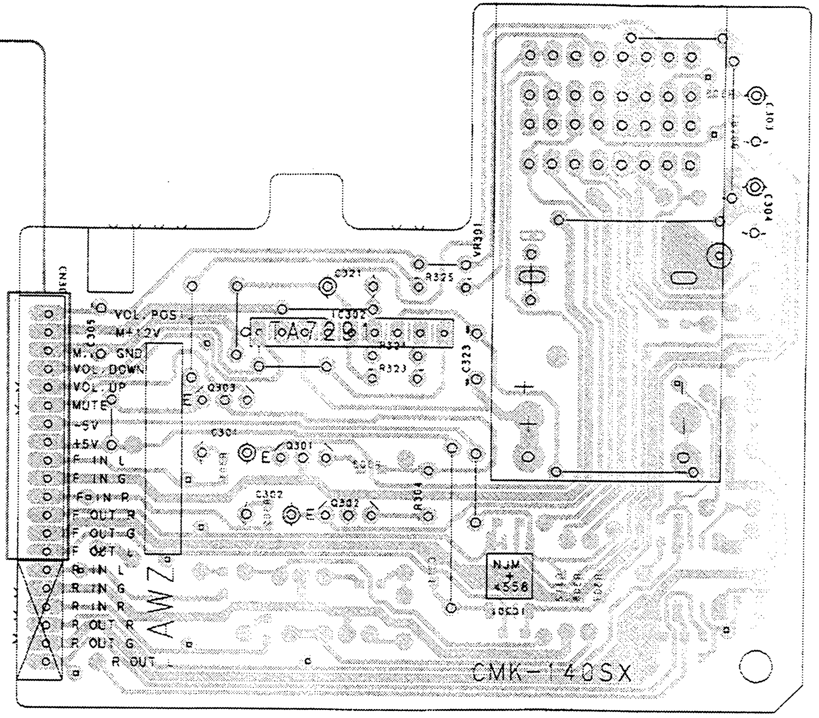
✱ SX-P920 ONLY
※ SX-P720 ONLY

This P. C. B connection diagram is viewed from the parts mounted side.

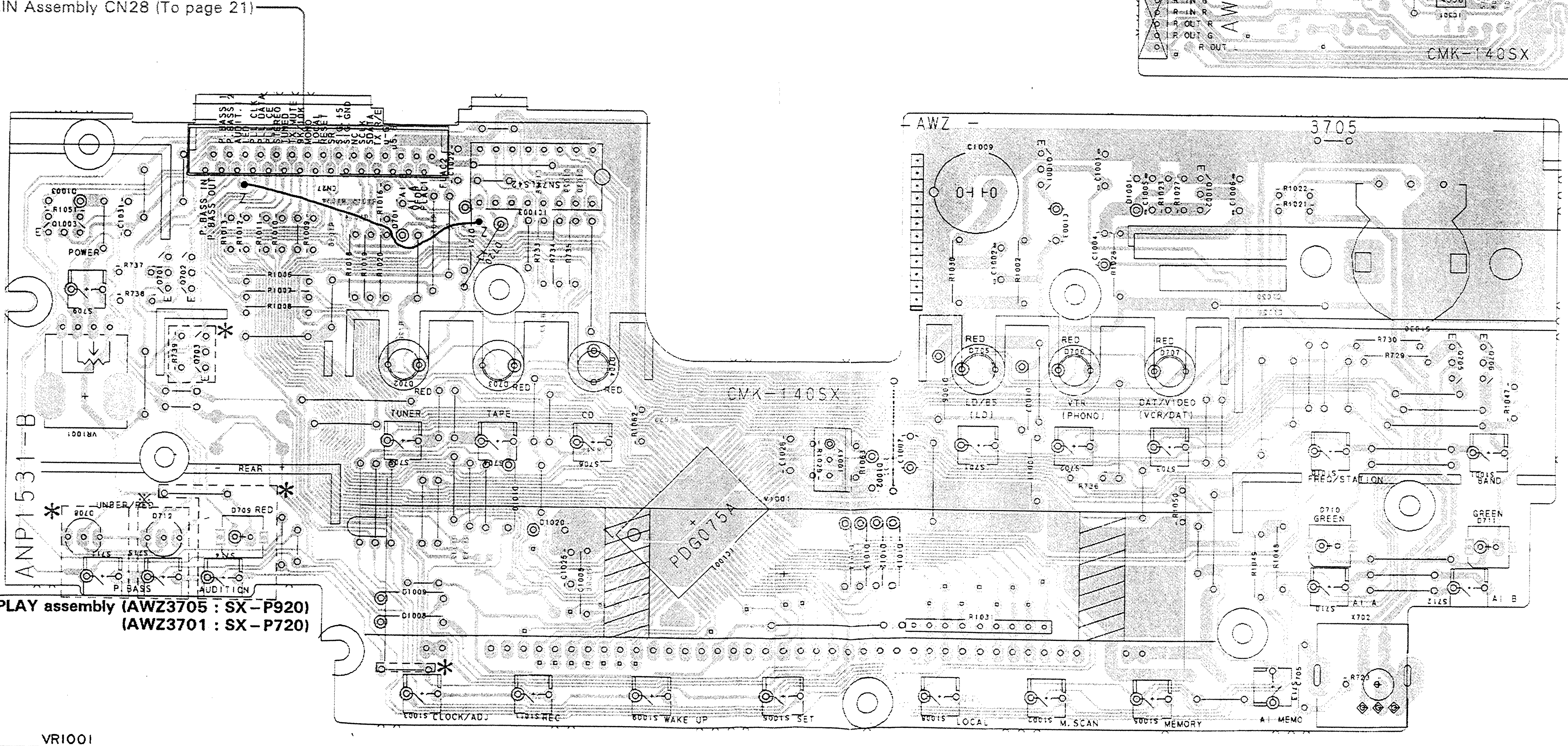
REGULATOR assembly (AWZ4009)


CMK-140SX
FAN
+12
+12B
GND
-5B
+5B
M. GND
+5
-5
+12
-5V
+5V
+12V
FAN
AWZ
To MAIN Assembly CN20 (To page 21)

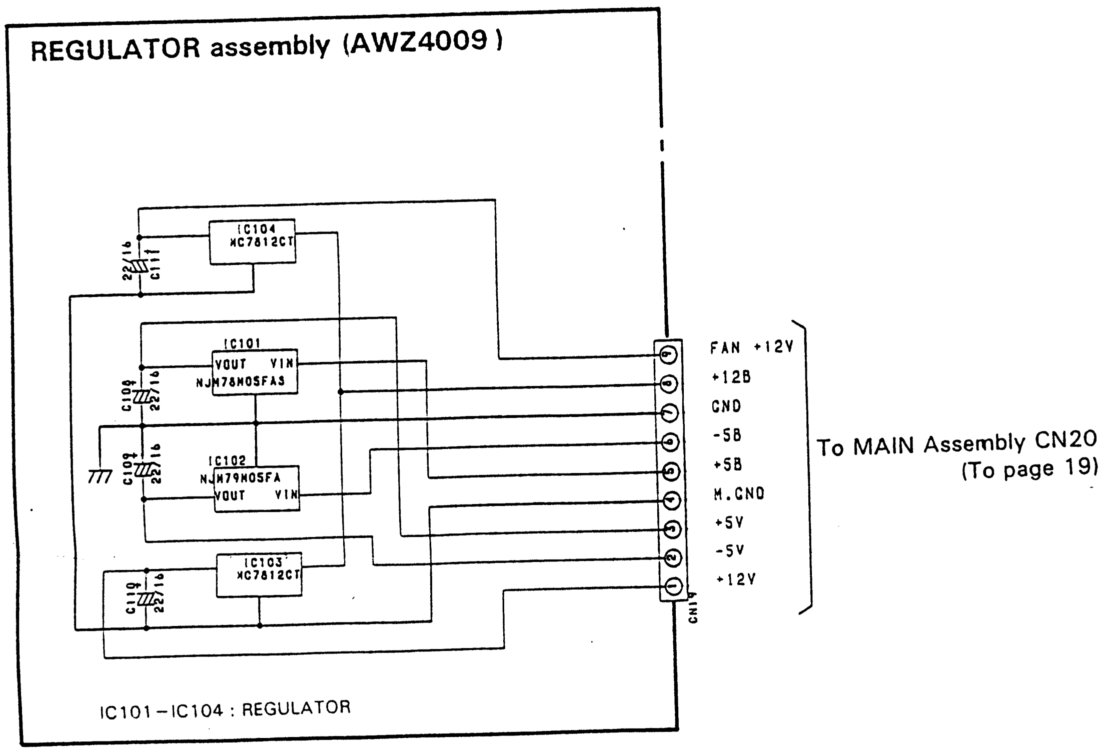
VR assembly (AWZ3708)

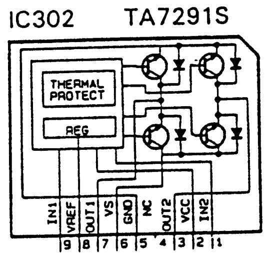

To MAIN Assembly CN29 (To page 21)
VOL. POS
M+12V
M. GND
VOL. DOWN
VOL. UP
MUTE
+5V
+5V
F. IN L
F. IN G
F. IN R
F. OUT R
F. OUT G
F. OUT L
R. IN L
R. IN G
R. IN R
R. OUT R
R. OUT G
R. OUT
TA7291
NJM 4558
AWZ
CMK-140SX

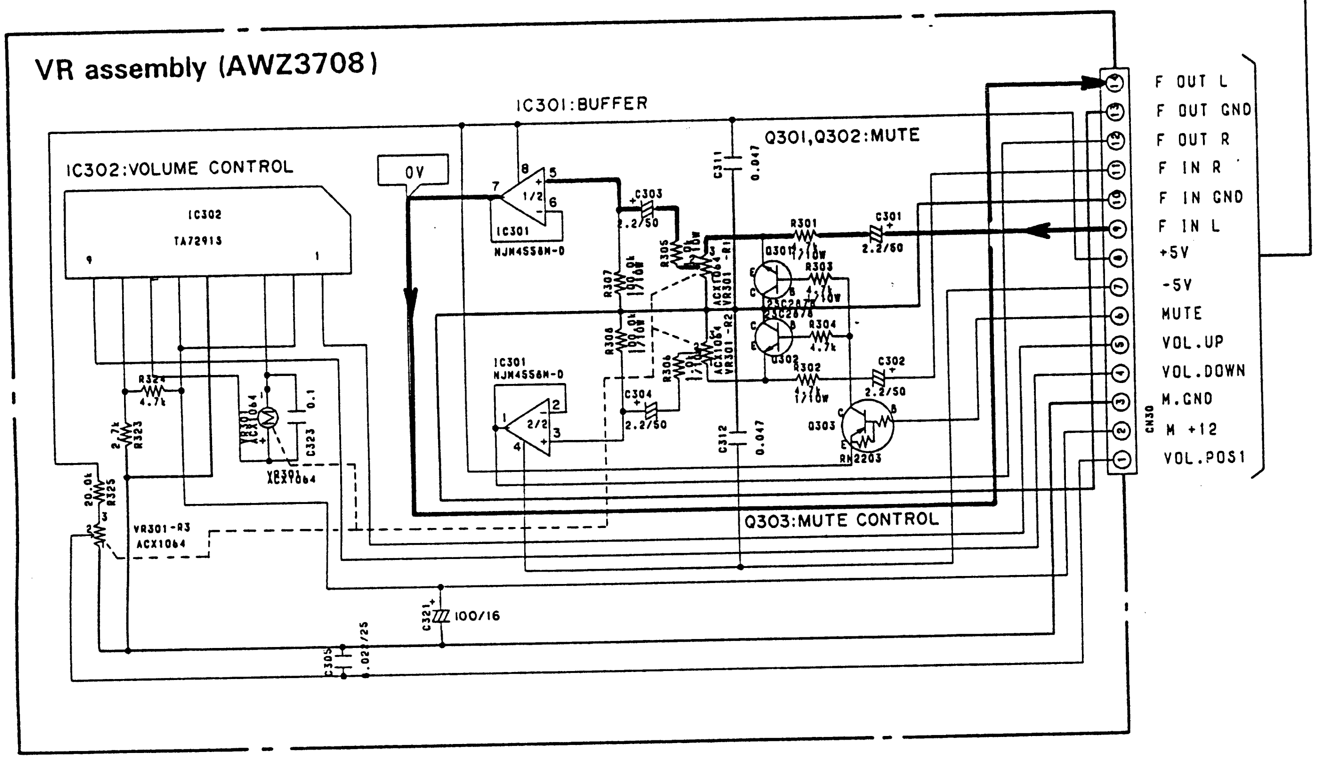
DISPLAY assembly (AWZ3705 : SX-P920)
(AWZ3701 : SX-P720)

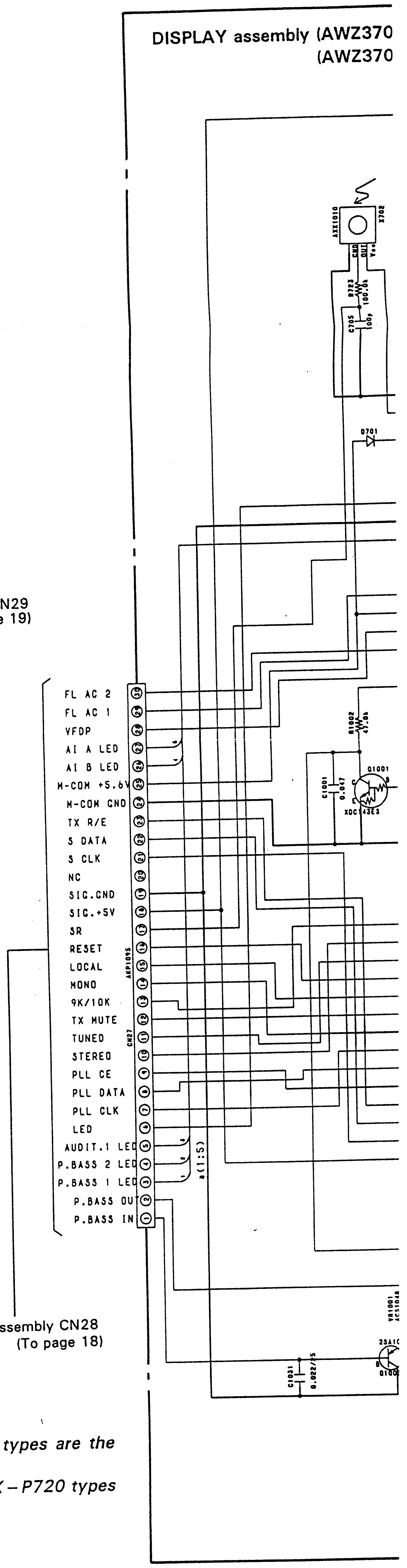

To MAIN Assembly CN28 (To page 21)
ANP1531-B
POWER
VR1001
CMK-140SX
AWZ
3705
RED
TUNER
TAPE
CD
REAR
UNDER RED
RED
P. BASS
AUDITION
PDG075A
RED
LD/BS (LD)
VTR (PHONO)
DAT/VIDEO (VCR/DAT)
FREQ/STATION
BAND
GREEN
GREEN
A1 A
A1 B
CLOCK/ADJ
REC
WAKE UP
SET
LOCAL
M. SCAN
MEMORY
A1 MEMO
✱
※

VR1001
Q1003
Q701-Q703
IC1003
IC1001
Q1001
Q1002
Q705 Q706


REGULATOR assembly (AWZ4009)
IC104
IC101
VOUT VIN
NJM78M05FA3
IC102
NJM79M05FA
VOUT VIN
IC103
C111
C108
C109
C110
22/16
FAN +12V
+12B
GND
-5B
+5B
M.GND
+5V
-5V
+12V
CN14
To MAIN Assembly CN20
(To page 19)
IC101 – IC104 : REGULATOR


IC302 TA7291S
THERMAL PROTECT
REG
IN1
VREF
OUT1
VS
GND
NC
OUT2
VCC
IN2
9 8 7 6 5 4 3 2 1

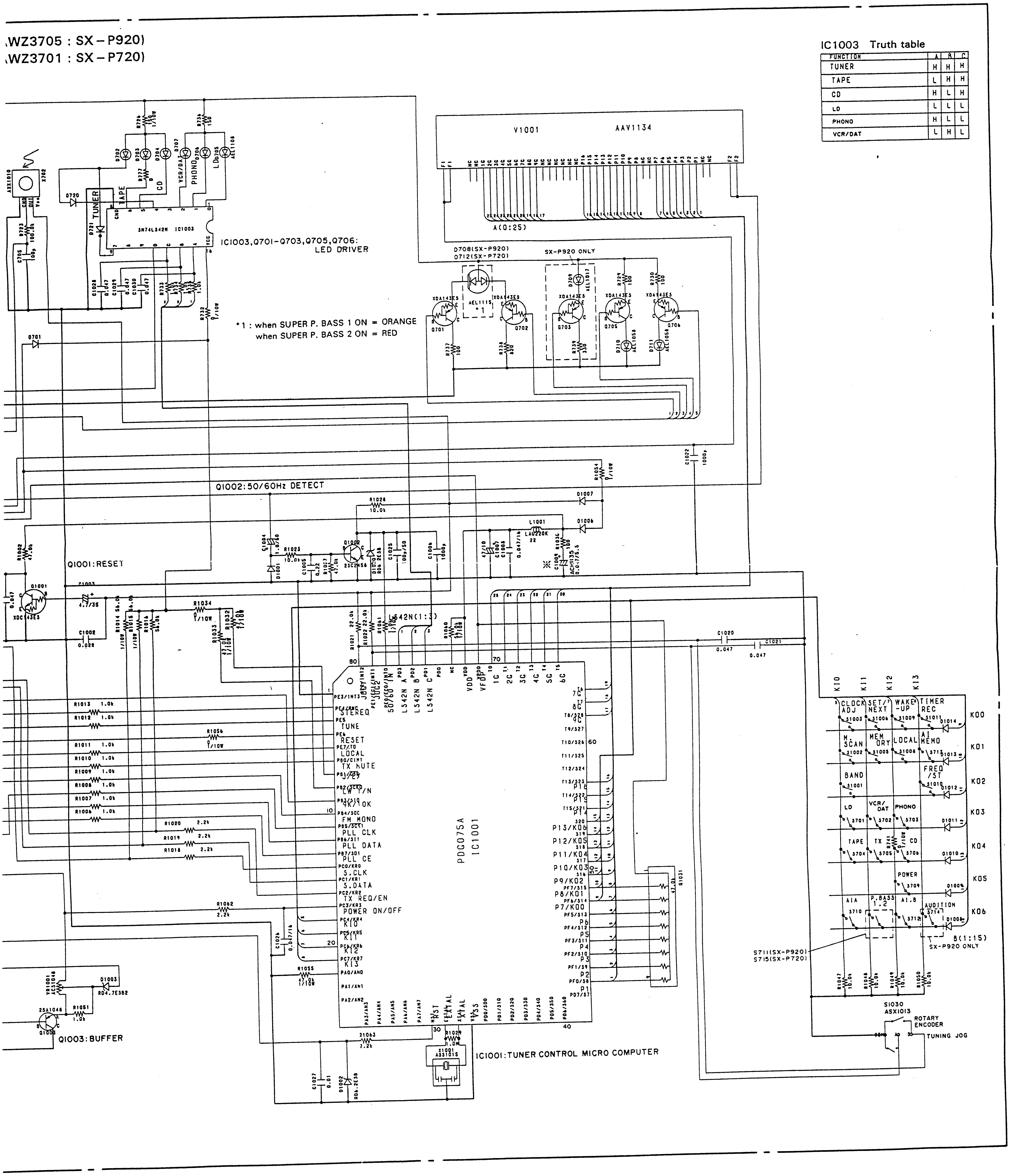

To MAIN Assembly CN29
(To page 19)
VR assembly (AWZ3708)
IC301:BUFFER
Q301,Q302:MUTE
IC302:VOLUME CONTROL
IC302
TA7291S
0V
IC301
NJM4558N-D
Q303:MUTE CONTROL
C303
C301
C302
C304
C311
C312
R301
R302
R303
R304
R305
R306
R307
R308
VR301-R1
VR301-R2
VR301-R3
ACX1064
R323
R324
R325
C321
C323
C305
100/16
0.047
CN30
F OUT L
F OUT GND
F OUT R
F IN R
F IN GND
F IN L
+5V
-5V
MUTE
VOL.UP
VOL.DOWN
M.GND
M +12
VOL.POS1


DISPLAY assembly (AWZ370
(AWZ370
X702
C705
D701
R1002
Q1001
C1001
C1031
VR1001
FL AC 2
FL AC 1
VFDP
AI A LED
AI B LED
M-COM +5.6V
M-COM GND
TX R/E
S DATA
S CLK
NC
SIG.GND
SIG.+5V
SR
RESET
LOCAL
MONO
9K/10K
TX MUTE
TUNED
STEREO
PLL CE
PLL DATA
PLL CLK
LED
AUDIT.1 LED
P.BASS 2 LED
P.BASS 1 LED
P.BASS OUT
P.BASS IN
CN27
AKP1095
To MAIN Assembly CN28
(To page 18)

NOTE :

The VR assemblies of SX – P920 and SX – P720 types are the same.

The REGULATOR assemblies of SX – P920 and SX – P720 types are the same.


WZ3705 : SX-P920)
WZ3701 : SX-P720)
IC1003,Q701-Q703,Q705,Q706: LED DRIVER
SN74LS42N IC1003
TUNER
TAPE
CD
VCR/DAT
PHONO
LD
V1001
AAV1134
A(0:25)
D708(SX-P920)
D712(SX-P720)
SX-P920 ONLY
AEL1115
*1 : when SUPER P. BASS 1 ON = ORANGE
when SUPER P. BASS 2 ON = RED
XDA143ES
Q701
Q702
Q703
Q705
Q706
Q1002:50/60Hz DETECT
Q1001:RESET
XDC143ES
L1001
LAU220K
2SC2458
PDG075A
IC1001
STEREO
TUNE
RESET
LOCAL
TX MUTE
FM MONO
PLL CLK
PLL DATA
PLL CE
S.CLK
S.DATA
TX REQ/EN
POWER ON/OFF
K10
K11
K12
K13
50/60 IN
LS42N A
LS42N B
LS42N C
VDD
VFDP
P13/K06
P12/K05
P11/K04
P10/K03
P9/K02
P8/K01
P7/K00
Q1003:BUFFER
2SA1048
X1001
ASS1015
IC1001:TUNER CONTROL MICRO COMPUTER
CLOCK ADJ
SET/NEXT
WAKE-UP
TIMER REC
M.SCAN
MEMORY
LOCAL
AI MEMO
BAND
FREQ/ST
LD
VCR/DAT
PHONO
TAPE
TX
CD
POWER
AIA
P.BASS 1.2
AI.8
AUDITION
K00
K01
K02
K03
K04
K05
K06
B(1:15)
SX-P920 ONLY
S711(SX-P920)
S715(SX-P720)
S1030
ASX1013
ROTARY ENCODER
TUNING JOG

IC1003 Truth table

FUNCTION	A	B	C
TUNER	H	H	H
TAPE	L	H	H
CD	H	L	H
LD	L	L	L
PHONO	H	L	L
VCR/DAT	L	H	L

4. PCB PARTS LIST

NOTES:

- *Part without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω 56×10^1 561 .... RD1/8PM 5 6 1 J
47kΩ 47×10^3 473 .... RD1/4PS 4 7 3 J
0.5Ω 0R5 .... RN2H 0 R 5 K
1Ω 010 .... RS1P 0 1 0 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ 562×10^1 5621 .... RN1/4SR 5 6 2 1 F

4.1 SX－P920/HE

Mark	No.	Description	Parts No.
	LIST OF ASSEMBLIES		
		TUNER ASSEMBLY	AWE1226
◉		MAIN ASSEMBLY	AWZ3719
◉		SUB. POWER ASSEMBLY	AWZ3727
◉		FR. AMP ASSEMBLY	AWZ3734
		MIC ASSEMBLY	
		HEAD. P ASSEMBLY	
		CONNECT ASSEMBLY	
◉		DISPLAY ASSEMBLY	AWZ3705
◉		VR ASSEMBLY	AWZ3708
◉		REGULATOR ASSEMBLY	AWZ4009

TUNER ASSEMBLY (AWE1226)

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC901	PLL IC	LM7001
	IC902	AM/FM IC	LA1265S
	IC903	MPX IC	AN7470P
	Q901	N－FET	2SK246
	Q902	TRANSISTOR	2SC1740SLN
	Q903, 904	TRANSISTOR	RN1203
	Q905－907	TRANSISTOR	RN2201
	Q908	TRANSISTOR	RN1203
	Q909	TRANSISTOR	2SC2668
	Q910－913	TRANSISTOR	2SC2458
	Q914	TRANSISTOR	2SA1048
	D901	DIODE	1SV156
	D902	DIODE	HSS104－02
	D903, 904	DIODE	1SS85
	D905－912	DIODE	HSS104－02
	COILS		
	F903	CERAMIC FILTER	ATF－119
	F904	CERAMIC FILTER	ATF1042
	F905	CERAMIC FILTER	ATF－107
	F906	FILTER	ATF1088

Mark	No.	Description	Parts No.
	L901, 903	AXIAL INDUCTOR	LAU2R2M
	L904	AXIAL INDUCTOR	LAU010M
	L905	AXIAL INDUCTOR	LAU2R2M
	L907	COIL	ATE－079
	L908	AXIAL INDUCTOR	LAU2R2M
	CAPACITORS		
	C901	ELECTR. CAPACITOR	CEAS330M16
	C902	CERAMIC CAPACITOR	CKDYF102Z50
	C903	CERAMIC CAPACITOR	CKPUYB101K50
	C904	CERAMIC CAPACITOR	CKPUYB102K50
	C905	AUDIO FILM CAPACITOR	CFTXA103J50
	C906	AUDIO FILM CAPACITOR	CFTXA224J50
	C907	CERAMIC CAPACITOR	CKPUYB102K50
	C910	CERAMIC CAPACITOR	CKPUYB101K50
	C911	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C912	CERAMIC CAPACITOR	CCDCH150J50
	C913	CERAMIC CAPACITOR	CKDYF223Z50
	C914	CERAMIC CAPACITOR	CCDCH150J50
	C915	CERAMIC CAPACITOR	CKDYF223Z50
	C916	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C919, 922	CERAMIC CAPACITOR	CKDYF223Z50
	C923	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C924	ELECTR. CAPACITOR	CEAS470M10
	C925	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C926	ELECTR. CAPACITOR	CEAS330M16
	C927	CERAMIC CAPACITOR	CCDSL470J50
	C928	ELECTR. CAPACITOR	CEAS470M10
	C929	AXIAL CERAMIC CAPACITOR	CKPUYF103Z25
	C930	ELECTR. CAPACITOR	CEAS330M16
	C931	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C932－935	CERAMIC CAPACITOR	CKDYF223Z50

Mark	No.	Description	Parts No.
	C936	ELECTR. CAPACITOR	CEAS4R7M50
	C937	CERAMIC CAPACITOR	CKDYF223Z50
	C938	ELECTR. CAPACITOR	CEAS010M50
	C939	CERAMIC CAPACITOR	CCDSL271J50
	C940	CERAMIC CAPACITOR	CKDYB222K50
	C941	CERAMIC CAPACITOR	CKDYF473Z50
	C942	ELECTR. CAPACITOR	CEAS2R2M50
	C943	ELECTR. CAPACITOR	CEAS470M10
	C944	ELECTR. CAPACITOR	CEAS0R1M50
	C945	ELECTR. CAPACITOR	CEANP2R2M50
	C946	ELECTR. CAPACITOR	CEAS470M25
	C947	CERAMIC CAPACITOR	CKDYF473Z50
	C948	CAPACITOR (470p)	ACE1039
	C949	ELECTROLYTIC CAPACIT	CEAS1R5M50
	C950	ELECTR. CAPACITOR	CEAS3R3M50
	C951	ELECTR. CAPACITOR	CEAS470M10
	C952	CERAMIC CAPACITOR	CKDYB122K50
	C953	CERAMIC CAPACITOR	CKDYB122K50
	C954	ELECTR. CAPACITOR	CEAS0R1M50
	C955	ELECTR. CAPACITOR	CEASR22M50
	C956	CERAMIC CAPACITOR	CKDYB122K50
	C957, 958	ELECTR. CAPACITOR	CEAS2R2M50
	C959	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C960	ELECTR. CAPACITOR	CEAS0R1M50
	C961, 962	CERAMIC CAPACITOR	CKDYB272K50
	C963	ELECTR. CAPACITOR	CEAS2R2M50
	C964	CERAMIC CAPACITOR	CKPUYB101K50
	C965	CERAMIC CAPACITOR	CKPUYB102K50
	C968	CERAMIC CAPACITOR	CCDSL101J50
	RESISTORS		
	VR901	VR (10k)	ACP1043
	VR902	VR (22k)	ACP1044
	VR903	VR (4.7k)	ACP1042
		Other resistors	RD1/8PM□□□J
	OTHERS		
	X901	CRYSTAL RESONATOR (7.2MHz)	ASS1042
	X902	CERAMIC RESONATOR (450kHz)	ATF1027
		ANTENNA TERMINAL 4－P	AKA1010
		AM RF TUNING BLOCK	AXX1012
		AM RF TUNING BLOCK	AXX1013
		2 Serial F. E. MODULE ASSEMBLY	AXQ1002

NOTE :
The 2 serial F. E. module assembly (AXQ1002) will be replaced upon periodical servicing. Therefore, individual parts in the assembly are not specified for service.

Mark	No.	Description	Parts No.

◉ MAIN ASSEMBLY (AWZ3719)

Mark	No.	Description	Parts No.
	SEMICONDUCTORS		
	IC1001	OP－AMP IC	NJM4558M－D
	IC401	E－VR IC	M5222L
	IC402－405	OP－AMP IC	NJM4558M－D
	IC51	REGULATOR IC	NJM78M56FAS
	IC701	SYSTEM CONTROL MICROCOMPUTER	PD5170B
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q151	TRANSISTOR	2SA1048
	Q152	TRANSISTOR	2SC2458
	Q153－155	TRANSISTOR	2SC2458
	Q158	TRANSISTOR	2SC2458
	Q161	TRANSISTOR	XDC143ES
	Q401, 405	TRANSISTOR	2SC2458
	Q51－54	TRANSISTOR	2SC2458
	D1003－1006	DIODE	1SS252
	D101	DIODE	D3SBA20
	D102－107	DIODE	1SR139－400
	D151	DIODE	1SR139－400
	D152, 153	DIODE	1SS252
	D154, 155	ZENER DIODE	RD11ESB
	D3001	DIODE	1SS252
	D401, 402	DIODE	1SS252
	D405	ZENER DIODE	RD6.8ESB2
	D51	ZENER DIODE	RD10ESB2
	D52	ZENER DIODE	RD16ESB1
	D53	ZENER DIODE	RD6.2ESB
	D54	ZENER DIODE	RD16ESB1
	D55－58	DIODE	1SR139－400
	D59	ZENER DIODE	RD6.2ESB
	D60－64	DIODE	1SR139－400
	D701	DIODE	1SS252
	D702, 709	ZENER DIODE	RD6.2ESB2
	RELAY		
	RY151	RELAY	ASR1035
	COILS		
	L251, 252	COIL	ATH－133
	L701	AXIAL INDUCTOR	LAU220K
	CAPACITORS		
	C103, 104	ELECTROLYTIC CAPACIT (5600p/50V)	ACH1145
	C105, 106	ELECTR. CAPACITOR	CEAS102M16
	C111, 112	CERAMIC CAPACITOR	CKCYF103Z50
	C113	ELECTR. CAPACITOR	CEAS222M25
	C151	ELECTR. CAPACITOR	CEAS330M25
	C152	ELECTR. CAPACITOR	CEAS221M16
	C153	ELECTR. CAPACITOR	CEAS100M50
	C154	ELECTR. CAPACITOR	CEAS221M16
	C2027	MYLAR FILM CAPACITOR	CQMA104K250

Mark	No.
	C251
	C300
	C401,
	C403
	C404
	C405
	C408
	C409
	C410
	C411
	C412
	C413
	C414
	C51
	C52
	C54
	C55
	C57
	C701
	C702
	C703
	C704
	C705-
	C901,
RESISTOR	
	R1007
	R101,
	R1011
	R1012
	R1013
	R151
	R158
	R163,
	R251,
	R52
	R53
	R54

No.	Description	Parts No.
936	ELECTR. CAPACITOR	CEAS4R7M50
937	CERAMIC CAPACITOR	CKDYF223Z50
938	ELECTR. CAPACITOR	CEAS010M50
939	CERAMIC CAPACITOR	CCDSL271J50
940	CERAMIC CAPACITOR	CKDYB222K50
941	CERAMIC CAPACITOR	CKDYF473Z50
942	ELECTR. CAPACITOR	CEAS2R2M50
943	ELECTR. CAPACITOR	CEAS470M10
944	ELECTR. CAPACITOR	CEAS0R1M50
945	ELECTR. CAPACITOR	CEANP2R2M50
946	ELECTR. CAPACITOR	CEAS470M25
947	CERAMIC CAPACITOR	CKDYF473Z50
948	CAPACITOR (470p)	ACE1039
949	ELECTROLYTIC CAPACIT	CEAS1R5M50
950	ELECTR. CAPACITOR	CEAS3R3M50
51	ELECTR. CAPACITOR	CEAS470M10
52	CERAMIC CAPACITOR	CKDYB122K50
53	CERAMIC CAPACITOR	CKDYB122K50
54	ELECTR. CAPACITOR	CEAS0R1M50
55	ELECTR. CAPACITOR	CEASR22M50
56	CERAMIC CAPACITOR	CKDYB122K50
57, 958	ELECTR. CAPACITOR	CEAS2R2M50
59	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
60	ELECTR. CAPACITOR	CEAS0R1M50
61, 962	CERAMIC CAPACITOR	CKDYB272K50
63	ELECTR. CAPACITOR	CEAS2R2M50
64	CERAMIC CAPACITOR	CKPUYB101K50
65	CERAMIC CAPACITOR	CKPUYB102K50
68	CERAMIC CAPACITOR	CCDSL101J50

ORS

No.	Description	Parts No.
901	VR (10k)	ACP1043
902	VR (22k)	ACP1044
903	VR (4.7k)	ACP1042
	Other resistors	RD1/8PM□□□J

S

No.	Description	Parts No.
01	CRYSTAL RESONATOR (7.2MHz)	ASS1042
02	CERAMIC RESONATOR (450kHz)	ATF1027
	ANTENNA TERMINAL 4−P	AKA1010
	AM RF TUNING BLOCK	AXX1012
	AM RF TUNING BLOCK	AXX1013
	2 Serial F. E. MODULE ASSEMBLY	AXQ1002

erial F. E. module assembly (AXQ1002) will be
upon periodical servicing. Therefore, individual
the assembly are not specified for service.

◉ MAIN ASSEMBLY (AWZ3719)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	OP−AMP IC	NJM4558M−D
	IC401	E−VR IC	M5222L
	IC402−405	OP−AMP IC	NJM4558M−D
	IC51	REGULATOR IC	NJM78M56FAS
	IC701	SYSTEM CONTROL MICROCOMPUTER	PD5170B
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q151	TRANSISTOR	2SA1048
	Q152	TRANSISTOR	2SC2458
	Q153−155	TRANSISTOR	2SC2458
	Q158	TRANSISTOR	2SC2458
	Q161	TRANSISTOR	XDC143ES
	Q401, 405	TRANSISTOR	2SC2458
	Q51−54	TRANSISTOR	2SC2458
	D1003−1006	DIODE	1SS252
	D101	DIODE	D3SBA20
	D102−107	DIODE	1SR139−400
	D151	DIODE	1SR139−400
	D152, 153	DIODE	1SS252
	D154, 155	ZENER DIODE	RD11ESB
	D3001	DIODE	1SS252
	D401, 402	DIODE	1SS252
	D405	ZENER DIODE	RD6.8ESB2
	D51	ZENER DIODE	RD10ESB2
	D52	ZENER DIODE	RD16ESB1
	D53	ZENER DIODE	RD6.2ESB
	D54	ZENER DIODE	RD16ESB1
	D55−58	DIODE	1SR139−400
	D59	ZENER DIODE	RD6.2ESB
	D60−64	DIODE	1SR139−400
	D701	DIODE	1SS252
	D702, 709	ZENER DIODE	RD6.2ESB2

RELAY

Mark	No.	Description	Parts No.
	RY151	RELAY	ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, 252	COIL	ATH−133
	L701	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C103, 104	ELECTROLYTIC CAPACIT (5600p/50V)	ACH1145
	C105, 106	ELECTR. CAPACITOR	CEAS102M16
	C111, 112	CERAMIC CAPACITOR	CKCYF103Z50
	C113	ELECTR. CAPACITOR	CEAS222M25
	C151	ELECTR. CAPACITOR	CEAS330M25
	C152	ELECTR. CAPACITOR	CEAS221M16
	C153	ELECTR. CAPACITOR	CEAS100M50
	C154	ELECTR. CAPACITOR	CEAS221M16
	C2027	MYLAR FILM CAPACITOR	CQMA104K250
	C251	ELECTROLYTIC CAPACIT	CEANP4R7M100
	C3001	ELECTR. CAPACITOR	CEAS471M10
	C401, 402	ELECTR. CAPACITOR	CEAS010M50
	C403	CERAMIC CAPACITOR	CKSQYF104Z50
	C404	CERAMIC CAPACITOR	CKSQYB333K50
	C405	ELECTR. CAPACITOR	CEAS2R2M50
	C408	ELECTR. CAPACITOR	CEAS010M50
	C409	CERAMIC CAPACITOR	CKSQYB333K50
	C410	ELECTR. CAPACITOR	CEAS2R2M50
	C411	ELECTR. CAPACITOR	CEASR68M50
	C412	ELECTR. CAPACITOR	CEAS2R2M50
	C413	CERAMIC CAPACITOR	CKSQYB183K50
	C414	CERAMIC CAPACITOR	CKSQYF683Z50
	C51	ELECTROLYTIC CAPACIT	CEAS222M25
	C52	ELECTR. CAPACITOR	CEAS221M50
	C54	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C55	ELECTROLYTIC CAPACIT	CEHAQ470M50
	C57	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C701	CERAMIC CAPACITOR	CKSQYF473Z50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C703	CERAMIC CAPACITOR	CKSQYF473Z50
	C704	CERAMIC CAPACITOR	CKDYF473Z50
	C705−708	CERAMIC CAPACITOR	CKSQYF473Z50
	C901, 902	CERAMIC CAPACITOR	CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	R1007	METAL FILM RESISTER	RN1/4PC1001F
	R101, 102	METAL OXIDE RESISTOR	RS2LMFR22J
	R1011	METAL FILM RESISTER	RN1/4PC5601F
	R1012	METAL FILM RESISTER	RN1/4PC6801F
	R1013	METAL FILM RESISTER	RN1/4PC2702F
	R151	CARBON FILM RESISTOR	RD1/2PM182J
	R158	CARBON FILM RESISTOR	RD1/8PM392J
	R163, 164	METAL OXIDE RESISTOR	RS2LMF331J
	R251, 252	CARBON FILM RESISTOR	RD1/4PMFL100J
	R52	CARBON FILM RESISTOR	RD1/8PM562J
	R53	CARBON FILM RESISTOR	RD1/8PM102J
	R54	METAL OXIDE RESISTOR	RS3LMF821J
		Other resistors	RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
		SPEAKER TERMINAL 4−P	AKE−109
	CN	PIN JACK 2P (REAR SPEAKERS)	AKB1185
	CN1	SOCKET (15P)	AKP1090
	CN15	CONNECTOR (4P)	KPC4
	CN2	SOCKET (15P)	AKP1092
	CN28	30P SOCKET	AKP1094
	TH1001	THERMISTOR	NTH2218F
	X701	CERAMIC RESONATOR (4MHz)	ASS1025

◉ SUB. POWER ASSEMBLY (AWZ3727)

RELAY

Mark	No.	Description	Parts No.
	RY51	RELAY	ASR1027

COIL & TRANSFORMER

Mark	No.	Description	Parts No.
	L51	FILTER	ATF−151
	T51	POWER TRANSFORMER	ATT1174

CAPACITORS

Mark	No.	Description	Parts No.
	C58, 59	CKA (0.01/AC400V)	ACG1003

RESISTOR

Mark	No.	Description	Parts No.
	R60	METAL OXIDE RESISTOR	RS2LMF680J

◉ FR. AMP ASSEMBLY (AWZ3734)

SEMICONDUCTOR

Mark	No.	Description	Parts No.
	IC201	AUDIO IC	STK4180−2G

CAPACITORS

Mark	No.	Description	Parts No.
	C201, 202	ELECTR. CAPACITOR	CEASR33M50
	C203, 204	CERAMIC CAPACITOR	CKCYB471K50
	C205−208	ELECTR. CAPACITOR	CEAS101M50
	C209, 210	ELECTR. CAPACITOR	CEAS100M50
	C211−214	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	R201, 202	CARBON FILM RESISTOR	RD1/8PM102J
	R203, 204	CARBON FILM RESISTOR	RD1/8PM563J
	R209, 210	CARBON FILM RESISTOR	RD1/4PMFL101J
		Other resistors	RD1/4PM□□□J

MIC ASSEMBLY

SEMICONDUCTOR

Mark	No.	Description	Parts No.
	IC501	OP−AMP IC	NJM4558M−D

CAPACITORS

Mark	No.	Description	Parts No.
	C501	CERAMIC CAPACITOR	CKSQYB681K50
	C502	ELECTR. CAPACITOR	CEJA010M50
	C503	CERAMIC CAPACITOR	CKSQYB471K50
	C504, 505	ELECTROLYTIC CAPACIT	CEJA100M25
	C506, 507	CERAMIC CAPACITOR	CKSQYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	VR501	VARIABLE RESISTOR (10k)	ACS1074
		Other resistors	RS1/10S☐☐☐J

OTHERS

Mark	No.	Description	Parts No.
		JACK (MIC)	AKN1009

HEAD. P ASSEMBLY

RESISTORS

Mark	No.	Description	Parts No.
	R557, 558	METAL OXIDE RESISTOR	RS2LMF331J

OTHERS

Mark	No.	Description	Parts No.
	CN551	JACK (HEAD PHONE)	AKN1028

CONNECT ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC104	IC PROTECTOR	ICP−N75
	IC105, 106	IC PROTECTOR	ICP−N50
	IC107−109	IC PROTECTOR	ICP−N75

◉ DISPLAY ASSEMBLY (AWZ3705)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	CONTROL MICROCOMPUTER	PDG075A
	IC1003	LOGIC IC	SN74LS42NP
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q1003	TRANSISTOR	2SA1048
	Q701−703	TRANSISTOR	XDA143ES
	Q705, 706	TRANSISTOR	XDA143ES
	D1001	DIODE	1SS252
	D1002	ZENER DIODE	RD6.2ESB
	D1003	ZENER DIODE	RD4.7ESB2
	D1006−1014	DIODE	1SS252
	D1020	ZENER DIODE	RD6.2ESB
	D701	DIODE	1SS252
	D702−707	LED (RED)	AEL1108
	D708	LED(RED, AMBER)	AEL1115
	D709	LED (RED)	AEL1017
	D710, 711	LED (LIGHT GREEN)	AEL1058
	D720, 721	DIODE	1SS252

SWITCHES

Mark	No.	Description	Parts No.
	S1001−1003	SWITCH (BAND, M. SCAN, CLOCK ADJ.)	ASG1029
	S1005, 1006	SWITCH (MEMORY, SET)	ASG1029
	S1008−1011	SWITCH (LOCAL, WAKE UP, FREQ/STATION, REC)	ASG1029
	S1030	ROTARY ENCODER (TUNING JOG)	ASX1013
	S701−706	SWITCH (LD, VCR/DAT, PHONO, TAPE, TUNER, CD)	ASG1029
	S709−714	SWITCH (POWER STANDBY/ON, AI. A, SUPER P. BASS, AI. B, AI. MEMORY, AUDITION)	ASG1029

COIL

Mark	No.	Description	Parts No.
	L1001	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C1001	CERAMIC CAPACITOR	CKDYF473Z50
	C1002	CERAMIC CAPACITOR	CKDYF223Z50
	C1003	ELECTR. CAPACITOR	CEAS4R7M50
	C1004	ELECTR. CAPACITOR	CEAS010M50
	C1005	AUDIO FILM CAPACITOR	CFTXA224J50
	C1006	CERAMIC CAPACITOR	CKDYB102K50
	C1007	ELECTR. CAPACITOR	CEJA470M10
	C1008	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1009	CAPACITOR (0.047/5.5)	ACH1135
	C1020, 1021	CERAMIC CAPACITOR	CKSQYF473Z50
	C1022	CERAMIC CAPACITOR	CKPUYB102K50
	C1025	CERAMIC CAPACITOR	CKPUYB101K50
	C1026	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1027	CERAMIC CAPACITOR	CKSQYB103K50
	C1028−1030	CERAMIC CAPACITOR	CKSQYF473Z50
	C1031	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C705	CERAMIC CAPACITOR	CKPUYB101K50

RESISTORS

Mark	No.	Description	Parts No.
	VR1001	VARIABLE (10k)	ACS1048
	R1014, 1015	CHIP RESISTOR	RS1/10S563J
	R1031	RESISTOR ARRAY	RA8S473J
	R1032, 1033	CHIP RESISTOR	RS1/10S473J

Mark	No.	Description	Parts No.
	R1034, 1054	CHIP RESISTOR	RS1/10S000J
	R1055	CHIP RESISTOR	RS1/10S473J
	R1056	CHIP RESISTOR	RS1/10S000J
	R1060	CHIP RESISTOR	RS1/10S563J
	R1061	CHIP RESISTOR	RS1/10S102J
	R726	CHIP RESISTOR	RS1/10S151J
	R732	CHIP RESISTOR	RS1/10S000J
	R741, 777	CHIP RESISTOR	RS1/10S000J
		Other resistors	RD1/8PM□□□J

OTHERS

	CN27	30P SOCKET	AKP1095
		REMOTE RECEIVER UNIT	AXX1010
	V1001	FL TUBE	AAV1134
	X1001	CRYSTAL RESONATOR (8MHz)	ASS1015

◉ VR ASSEMBLY (AWZ3708)

SEMICONDUCTORS

	IC301	OP−AMP IC	NJM4558M−D
	IC302	MECHANISM DRIVER IC	TA7291S
	Q301, 302	TRANSISTOR	2SC2878
	Q303	TRANSISTOR	RN2203

CAPACITORS

	C301−304	ELECTR. CAPACITOR	CEAS2R2M50
	C305	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C311, 312	CERAMIC CAPACITOR	CKSQYF473Z50
	C321	ELECTR. CAPACITOR	CEAS101M16
	C323	CERAMIC CAPACITOR	CKDYX104M25

RESISTORS

	VR301	VARIABLE RESISTOR (100k×2, 50k×1)	ACX1064
	R301−303	CHIP RESISTOR	RS1/10S472J
	R305, 306	CHIP RESISTOR	RS1/10S102J
	R307, 308	CHIP RESISTOR	RS1/10S104J
		Other resistors	RD1/8PM□□□J

Mark	No.	Description	Parts No.

◉ REGULATOR ASSEMBLY (AWZ4009)

SEMICONDUCTORS

	IC101	REGULATOR IC	NJM78M05FAS
	IC102	REGULATOR IC	NJM79M05FA
	IC103, 104	REGULATOR IC	MC7812CT

CAPACITORS

	C108	ELECTR. CAPACITOR	CEAS220M16
	C109	ELECTROLYTIC CAPACIT	CEJA220M16
	C110, 111	ELECTR. CAPACITOR	CEAS220M16

4.2 SX-P720/HE

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
		TUNER ASSEMBLY	AWE1226
◉		MAIN ASSEMBLY	AWZ3714
◉		SUB. POWER ASSEMBLY	AWZ3722
◉		FR. AMP ASSEMBLY	AWZ3730
		HEAD. P ASSEMBLY	
		CONNECT ASSEMBLY	
◉		DISPLAY ASSEMBLY	AWZ3701
◉		VR ASSEMBLY	AWZ3708
◉		REGULATOR ASSEMBLY	AWZ4009

TUNER ASSEMBLY (AWE1226)

The TUNER assembly of SX-P720 is the same as that of SX-P920.
Refer to page 34.

◉ MAIN ASSEMBLY (AWZ3714)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	OP-AMP IC	NJM4558M-D
	IC401	E-VR IC	M5222L
	IC402-405	OP-AMP IC	NJM4558M-D
	IC51	REGULATOR IC	NJM78M56FAS
	IC701	SYSTEM CONTROL MICROCOMPUTER	PD5170B
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q151	TRANSISTOR	2SA1048
	Q152-155	TRANSISTOR	2SC2458
	Q158	TRANSISTOR	2SC2458
	Q161	TRANSISTOR	XDC143ES
	Q401, 405	TRANSISTOR	2SC2458
	Q51-54	TRANSISTOR	2SC2458
	D1003-1006	DIODE	1SS252
	D101	DIODE	D3SBA20
	D102-107	DIODE	1SR139-400
	D151	DIODE	1SR139-400
	D152, 153	DIODE	1SS252
	D154, 155	ZENER DIODE	RD11ESB
	D3001	DIODE	1SS252
	D401, 402	DIODE	1SS252
	D405	ZENER DIODE	RD6.8ESB2
	D51	ZENER DIODE	RD10ESB2
	D52, 54	ZENER DIODE	RD16ESB1
	D60-64	DIODE	1SR139-400
	D701	DIODE	1SS252
	D702, 709	ZENER DIODE	RD6.2ESB2

RELAY

Mark	No.	Description	Parts No.
	RY151	RELAY	ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, 252	COIL	ATH-133
	L701	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C103, 104	ELECTROLYTIC CAPACIT (3300/50V)	ACH1017
	C105, 106	ELECTR. CAPACITOR	CEAS102M16
	C111, 112	CERAMIC CAPACITOR	CKCYF103Z50
	C113	ELECTR. CAPACITOR	CEAS222M25
	C151	ELECTR. CAPACITOR	CEAS330M25
	C152	ELECTR. CAPACITOR	CEAS221M16
	C153	ELECTR. CAPACITOR	CEAS100M50
	C154	ELECTR. CAPACITOR	CEAS221M16
	C2027	MYLAR FILM CAPACITOR	CQMA104K250
	C251	ELECTROLYTIC CAPACIT	CEANP4R7M100
	C3001	ELECTR. CAPACITOR	CEAS471M10
	C401, 402	ELECTR. CAPACITOR	CEAS010M50
	C403	CERAMIC CAPACITOR	CKSQYF104Z50
	C404	CERAMIC CAPACITOR	CKSQYB333K50
	C405	ELECTR. CAPACITOR	CEAS2R2M50
	C408	ELECTR. CAPACITOR	CEAS010M50
	C409	CERAMIC CAPACITOR	CKSQYB333K50
	C410	ELECTR. CAPACITOR	CEAS2R2M50
	C411	ELECTR. CAPACITOR	CEASR68M50
	C412	ELECTR. CAPACITOR	CEAS2R2M50
	C413	CERAMIC CAPACITOR	CKSQYB183K50
	C414	CERAMIC CAPACITOR	CKSQYF683Z50
	C51	ELECTROLYTIC CAPACIT	CEAS222M25
	C52	ELECTR. CAPACITOR	CEAS221M50
	C54	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C55	ELECTROLYTIC CAPACIT	CEHAQ470M50
	C57	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C701	CERAMIC CAPACITOR	CKSQYF473Z50
	C702	ELECTR. CAPACITOR	CEAS470M16
	C703	CERAMIC CAPACITOR	CKSQYF473Z50
	C704	CERAMIC CAPACITOR	CKDYF473Z50
	C705-708	CERAMIC CAPACITOR	CKSQYF473Z50
	C901, 902	CERAMIC CAPACITOR	CKSQYF104Z50

RESISTORS

Mark	No.	Description	Parts No.
	R1007	METAL FILM RESISTER	RN1/4PC1001F
	R101, 102	METAL OXIDE RESISTOR	RS2LMFR22J

Mark	No.	Description	Parts No.
	R1011	METAL FILM RESISTER	RN1/4PC5601F
	R1012	METAL FILM RESISTER	RN1/4PC6801F
	R1013	METAL FILM RESISTER	RN1/4PC2702F
	R151	CARBON FILM RESISTOR	RD1/2PM182J
	R158	CARBON FILM RESISTOR	RD1/8PM392J
	R163	METAL OXIDE RESISTOR	RS2LMF221J
	R164	METAL OXIDE RESISTOR	RS2LMF331J
	R251, 252	CARBON FILM RESISTOR	RD1/4PMFL100J
	R52	CARBON FILM RESISTOR	RD1/8PM562J
	R53	CARBON FILM RESISTOR	RD1/8PM102J
	R54	METAL OXIDE RESISTOR	RS3LMF821J
		Other resistors	RS1/10S□□□J

OTHERS

Mark	No.	Description	Parts No.
		SPEAKER TERMINAL 4-P	AKE-109
	CN	PIN JACK 2P (REAR SPEAKERS)	AKB1185
	CN1	SOCKET (15P)	AKP1090
	CN2	SOCKET (15P)	AKP1092
	CN28	30P SOCKET	AKP1094
	TH1001	THERMISTOR	NTH2218F
	X701	CERAMIC RESONATOR (4MHz)	ASS1025

◉ SUB. POWER ASSEMBLY (AWZ3722)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	D53	ZENER DIODE	RD6.2ESB
	D55-58	DIODE	1SR139-400
	D59	ZENER DIODE	RD6.2ESB

RELAY

Mark	No.	Description	Parts No.
	RY51	RELAY	ASR1027

COIL & TRANSFORMER

Mark	No.	Description	Parts No.
	L51	FILTER	ATF-151
	T51	POWER TRANSFORMER	ATT1174

CAPACITORS

Mark	No.	Description	Parts No.
	C58, 59	CKA (0.01/AC400V)	ACG1003

RESISTOR

Mark	No.	Description	Parts No.
	R60	METAL OXIDE RESISTOR	RS2LMF680J

◉ FR. AMP ASSEMBLY (AWZ3730)

SEMICONDUCTOR

Mark	No.	Description	Parts No.
	IC201	AUDIO IC	STK4160-2G

CAPACITORS

Mark	No.	Description	Parts No.
	C201, 202	ELECTROLYTIC CAPACIT	CEASR15M50
	C203, 204	CERAMIC CAPACITOR	CKCYB471K50
	C205-208	ELECTR. CAPACITOR	CEAS101M50
	C209, 210	ELECTR. CAPACITOR	CEAS100M50
	C211-214	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

Mark	No.	Description	Parts No.
	R201, 202	CARBON FILM RESISTOR	RD1/8PM102J
	R203, 204	CARBON FILM RESISTOR	RD1/8PM563J
	R209, 210	CARBON FILM RESISTOR	RD1/4PMFL101J
		Other resistors	RD1/4PM□□□J

HEAD. P ASSEMBLY

The HEAD. P assembly of SX-P720 is the same as that of SX-P920.
Refer to page 37.

CONNECT ASSEMBLY

The CONNECT assembly of SX-P720 is the same as that of SX-P920.
Refer to page 37.

◉ DISPLAY ASSEMBLY (AWZ3701)

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001	CONTROL MICROCOMPUTER	PDG075A
	IC1003	LOGIC IC	SN74LS42NP
	Q1001	TRANSISTOR	XDC143ES
	Q1002	TRANSISTOR	2SC2458
	Q1003	TRANSISTOR	2SA1048
	Q701, 702	TRANSISTOR	XDA143ES
	Q705, 706	TRANSISTOR	XDA143ES
	D1001	DIODE	1SS252
	D1002	ZENER DIODE	RD6.2ESB
	D1003	ZENER DIODE	RD4.7ESB2
	D1006-1014	DIODE	1SS252
	D1020	ZENER DIODE	RD6.2ESB

Mark	No.	Description	Parts No.
	D701	DIODE	1SS252
	D702-707	LED (RED)	AEL1108
	D710, 711	LED (LIGHT GREEN)	AEL1058
	D712	LED (RED, AMBER)	AEL1115
	D720, 721	DIODE	1SS252

SWITCHES

Mark	No.	Description	Parts No.
	S1001-1003	SWITCH (BAND, M. SCAN, CLOCK ADJ.)	ASG1029
	S1005, 1006	SWITCH (MEMORY, SET)	ASG1029
	S1008-1011	SWITCH (LOCAL, WAKE UP, FREQ/STATION, REC)	ASG1029
	S1030	ROTARY ENCODER (TUNING JOG)	ASX1013
	S701-706	SWITCH (LD, VCR/DAT, PHONO, TAPE, TUNER, CD)	ASG1029
	S709, 710	SWITCH (POWER STANDBY/ON, AI. A)	ASG1029
	S712, 713	SWITCH (AI. B, AI, MEMORY)	ASG1029
	S715	SWITCH (SUPER P. BASS)	ASG1029

COIL

Mark	No.	Description	Parts No.
	L1001	AXIAL INDUCTOR	LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C1001	CERAMIC CAPACITOR	CKDYF473Z50
	C1002	CERAMIC CAPACITOR	CKDYF223Z50
	C1003	ELECTR. CAPACITOR	CEAS4R7M50
	C1004	ELECTR. CAPACITOR	CEAS010M50
	C1005	AUDIO FILM CAPACITOR	CFTXA224J50
	C1006	CERAMIC CAPACITOR	CKDYB102K50
	C1007	ELECTR. CAPACITOR	CEJA470M10
	C1008	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1009	CAPACITOR (0.047/5.5)	ACH1135
	C1020, 1021	CERAMIC CAPACITOR	CKSQYF473Z50
	C1022	CERAMIC CAPACITOR	CKPUYB102K50
	C1025	CERAMIC CAPACITOR	CKPUYB101K50
	C1026	AXIAL CERAMIC CAPACITOR	CKPUYF473Z16
	C1027	CERAMIC CAPACITOR	CKSQYB103K50
	C1028-1030	CERAMIC CAPACITOR	CKSQYF473Z50
	C1031	AXIAL CERAMIC CAPACITOR	CKPUYF223Z25
	C705	CERAMIC CAPACITOR	CKPUYB101K50

RESISTORS

Mark	No.	Description	Parts No.
	VR1001	VARIABLE (10k)	ACS1048
	R1014, 1015	CHIP RESISTOR	RS1/10S563J
	R1031	RESISTOR ARRAY	RA8S473J
	R1032, 1033	CHIP RESISTOR	RS1/10S473J
	R1034, 1054	CHIP RESISTOR	RS1/10S000J
	R1055	CHIP RESISTOR	RS1/10S473J
	R1056	CHIP RESISTOR	RS1/10S000J
	R1060	CHIP RESISTOR	RS1/10S563J
	R1061	CHIP RESISTOR	RS1/10S102J
	R726	CHIP RESISTOR	RS1/10S151J
	R732, 741	CHIP RESISTOR	RS1/10S000J
	R777	CHIP RESISTOR	RS1/10S000J
		Other resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN27	30P SOCKET	AKP1095
		REMOTE RECEIVER UNIT	AXX1010
	V1001	FL TUBE	AAV1134
	X1001	CRYSTAL RESONATOR (8MHz)	ASS1015

◉ VR ASSEMBLY (AWZ3708)

The VR assembly of SX-P720 is the same as that of SX-P920.
Refer to page 38.

◉ REGULATOR ASSEMBLY (AWZ4009)

The REGULATOR assembly of SX-P720 is the same as that of SX-P920.
Refer to page 38.

5. ADJUSTMENTS

5.1 ADJUSTMENT OF THE FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 5−1.

Step No.	Adjustment title	FM SG (1kHz±75kHz dev.)		Reception frequency display	Adjustment location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center adjustment	83	80	83.0MHz	L907	Adjust so that the DC voltage between the TP901 (Vref) and TP902 (T−meter) becomes 0V±50mV.
2	VCO adjustment	Non modulation	80	83.0MHz	VR903	Adjust so that the output of the TP905 (VCO) becomes 76kHz±0.5kHz.
3	TUNED IND. Lighting level	83 *1 (Stereo modulation)	18 (±3dB)	83.0MHz	VR902	Adjust so that the indicators of TUNED, STEREO IND. start to light up.

Note :

Perform steps 1 and 3 when the F. E. module assembly is replaced.

Confirm VCO (step 2) and adjust if improper.

*1 Stereo modulation : Main 1kHz L+R ±68.25Hz dev.
Pilot 19kHz ±6.75kHz dev.

5.2 ADJUSTMENT OF MW TUNER SECTION

- Set the mode selector to MW BAND.
- Connect the wiring as shown in Fig. 5−2.

Step No.	Adjustment title	AM SG (400Hz 30% Mod.)		Reception frequency display	Adjustment location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Tracking adjustment *4	603 *1	Feeble input	603kHz *1	AM RF Tuning block antenna coil	Adjust so that the DC voltage between the TP904 (S-meter) and GND becomes at maximum level.
		1395 *3		1395kHz *3	TC901	
2	IFT adjustment *4	603 *1		603kHz *1	F904	
3	TUNED IND. Lighting level	999 *2	55 (±5dB)	999kHz *2	VR901	Adjust so that the indicators of TUNED IND. start to light up.

Note 1 :

Frequencies indicated in the above table are for the area using 9kHz step (SD : 9kHz, HE, HB, HEWZI)

For the area using 10kHz step (SD : 10kHz, KUC), frequencies should be as follows :

**1 : 600kHz*
**2 : 1000kHz*
**3 : 1400kHz*

Note 2 :

*Adjustment marked with " *4 " is only for HEWZI.*

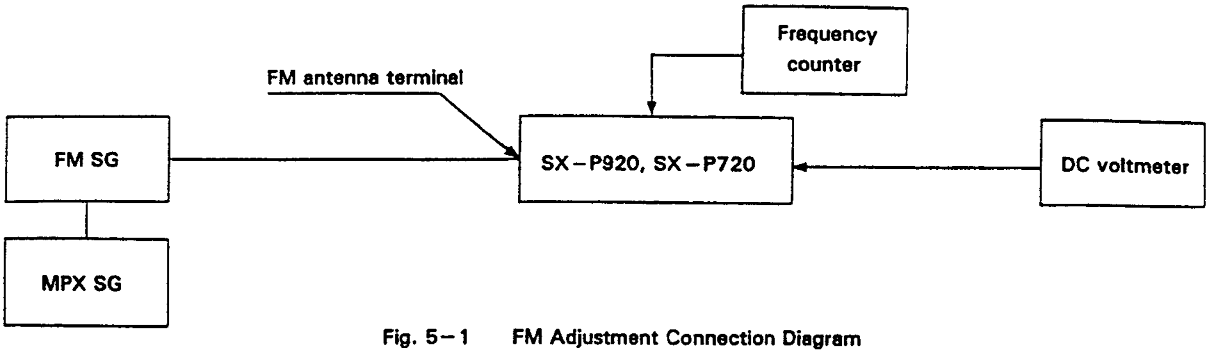

Frequency counter
FM antenna terminal
FM SG
SX-P920, SX-P720
DC voltmeter
MPX SG

Fig. 5-1 FM Adjustment Connection Diagram

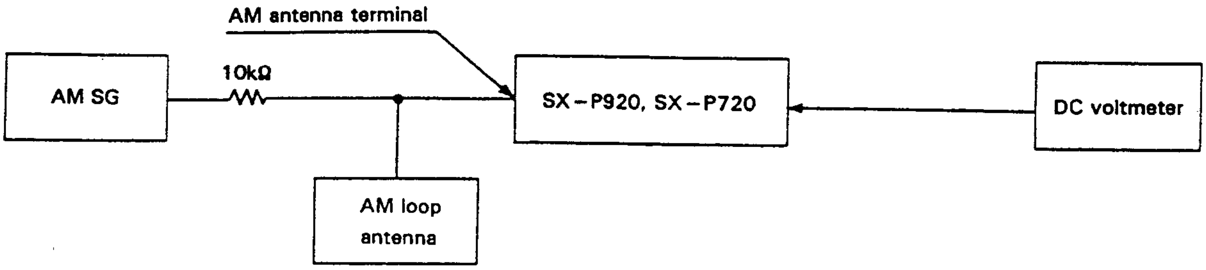

AM antenna terminal
AM SG
10kΩ
SX-P920, SX-P720
DC voltmeter
AM loop antenna

Fig. 5-2 MW Adjustment Connection Diagram

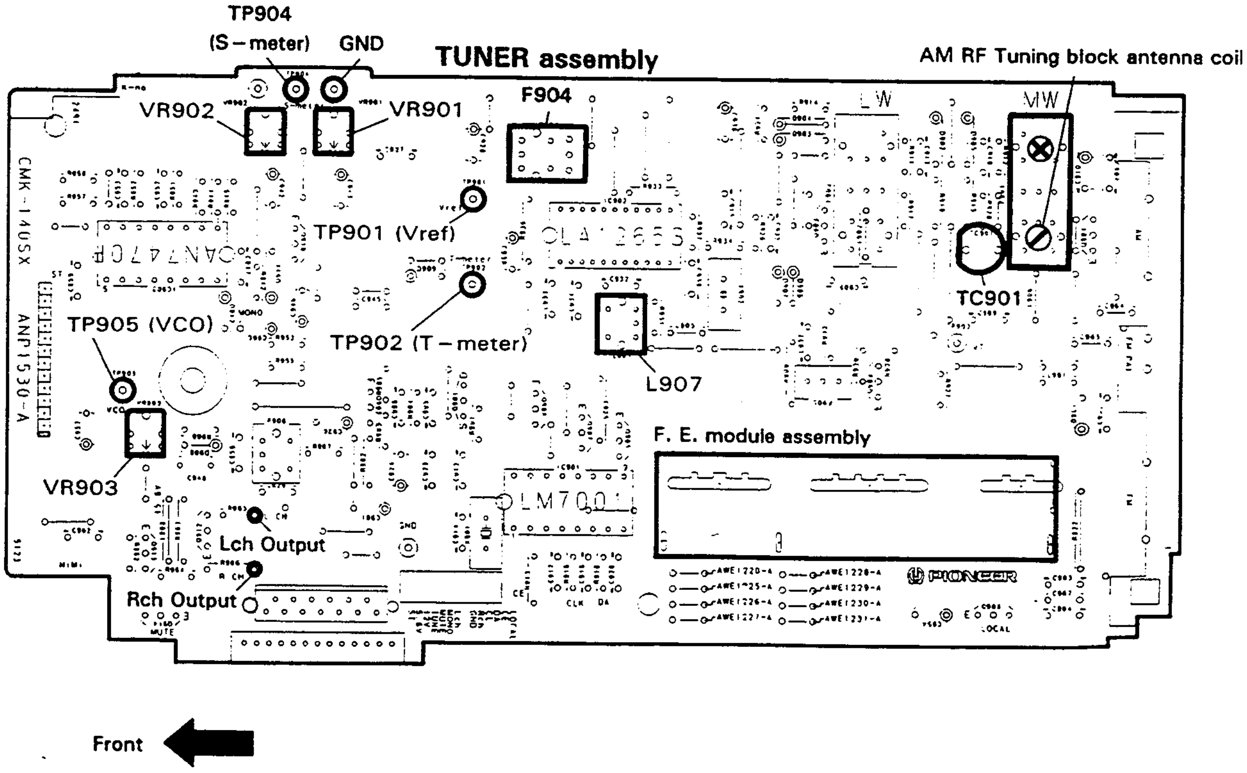

TP904 (S-meter)
GND
TUNER assembly
AM RF Tuning block antenna coil
VR902
VR901
F904
LW
MW
CMK-140SX
ANP1530-A
TP901 (Vref)
TP905 (VCO)
TP902 (T-meter)
L907
TC901
F. E. module assembly
VR903
LM7001
Lch Output
Rch Output
PIONEER
Front

Fig. 5-3 Adjustment Points

6. IC INFORMATION

■ PDG075A (IC1001) : TUNER CONTROL MICRO-COMPUTER

● Pin Function

No.	Pin Name	I/O	Description	ACT
1	-	I	Switching Destination SX-P920, SX-P720 : L	
2	STEREO	I	$\overline{\text{STEREO}}$ Signal Input	L
3	TUNE	I	$\overline{\text{TUNED}}$ Signal Input	L
4	RESET	O	AMP MICRO-COMPUTER Reset Output	L
5	LOCAL	O	LOCAL Output	
6	TX MUTE	O	TUNER MUTE Output	
7	J/EX	I	Japan (H) / Export (L) Input	
8	LW Y/N	I	LW (H) / no LW (L) Input	
9	9k/10k	I	Switchig Channel Step Frequency 10 (H) / 9 (L) kHz Input	
10	FM MONO	O	FM MONO Output	
11	PLL CLK	O	PLL CLK Output (LM7001)	
12	PLL DATA	O	PLL DATA Output (LM7001)	
13	PLL CE	O	PLL CE Output (LM7001)	
14	S. CLK	I	System bus CLK Input	
15	S. DATA	I/O	System bus DATA Input/Output	
16	TX REQ/EN	O	System bus REQ Output	
		I	System bus ENABLE Input	
17	POWER ON/OFF	I	POWER IN ON (H) / OFF (L)	
18	KI0	I	Key Scan Input	
19	KI1	I	Key Scan Input	
20	KI2	I	Key Scan Input	
21	KI3	I	Key Scan Input	
22	-	I	Switching model type SX-P920, SX-P720 : L	
23	-	I	Not Used	
24	-	I	Not Used	
25	-	I	Not Used	

No.	Pin Name	I/O	Description	ACT
26	-	I	Not Used	
27	-	I	Not Used	
28	-	I	Not Used	
29	-	I	Not Used	
30	RST	I/O	RESET Input	L
31	EXTAL	I	Connected to ceramic oscillator (8MHz).	
32	XTAL	O		
33	Vss	GND	Connected to GND	
34	-	DP	Not Used	
35	-	DP	Not Used	
36	-	DP	Not Used	
37	-	DP	Not Used	
38	-	DP	Not Used	
39	-	DP	Not Used	
40	-	DP	Not Used	
41	-	DP	Not Used	
42	P1	DP	Segment Output	
43	P2	DP	Segment Output	
44	P3	DP	Segment Output	
45	P4	DP	Segment Output	
46	P5	DP	Segment Output	
47	P6	DP	Segment Output	
48	P7/KO0	DP	Segment Output/Key Scan Output	
49	P8/KO1	DP	Segment Output/Key Scan Output	
50	P9/KO2	DP	Segment Output/Key Scan Output	
51	P10/KO3	DP	Segment Output/Key Scan Output	
52	P11/KO4	DP	Segment Output/Key Scan Output	
53	P12/KO5	DP	Segment Output/Key Scan Output	
54	P13/KO6	DP	Segment Output/Key Scan Output	
55	P14	DP	Segment Output	

No.	Pin Name	I/O	Description	ACT
56	P15	DP	Segment Output	
57	P16	DP	Segment Output	
58	-	DP	Not Used	
59	-	DP	Not Used	
60	-	DP	Not Used	
61	-	DP	Not Used	
62	9G	DP	FL Grid Output (9G)	
63	8G	DP	FL Grid Output (8G)	
64	7G	DP	FL Grid Output (7G)	
65	6G	DP	FL Grid Output (6G)	
66	5G	DP	FL Grid Output (5G)	
67	4G	DP	FL Grid Output (4G)	
68	3G	DP	FL Grid Output (3G)	
69	2G	DP	FL Grid Output (2G)	
70	1G	DP	FL Grid Output (1G)	
71	VFDP	-	−30V FDP load power Input	
72	VDD	-	+5V Power Suplly Input	
73	-	-	Connected to Vdd.	
74	-	O	Not Used	
75	LS42N C	O	FUNCTION LED DRIVE IC (SN74LS42N) Control (C)	
76	LS42N B	O	FUNCTION LED DRIVE IC (SN74LS42N) Control (B)	
77	LS42N A	O	FUNCTION LED DRIVE IC (SN74LS42N) Control (A)	
78	50/60 IN	I	AC Input (50/60Hz)	
79	JOG2	I	JOG 2 Input	
80	JOG1	I	JOG 1 Input	

NOTE :

I	CMOS Input
O	CMOS Output
N	Nch Open Drain Output
P	Pch Open Drain Output
UN	Nch Open Drain Output with Pull-up Resistor
DP	Pch Open Drain Output with Pull-down Resistor
UI	CMOS Input with Pull-up Resistor
DI	CMOS Input with Pull-down Resistor

■ PD5170B (IC701) : AMPLIFIER CONTROL MICRO-COMPUTER

● Pin Function

<table>
<tr><th>No.</th><th>Pin Name</th><th>Description</th><th>I/O</th></tr>
<tr><td>1</td><td>+5V</td><td>+5V Power supply</td><td></td></tr>
<tr><td>2</td><td>GND</td><td>GND</td><td></td></tr>
<tr><td>3</td><td>VOL REF</td><td>A/D Reference Voltage Input</td><td>I</td></tr>
<tr><td>4</td><td>A. REC
OUT MUTE</td><td>REC OUT Audio Output
MUTE ON/OFF</td><td>O</td></tr>
<tr><td>5</td><td>N. C</td><td rowspan="4">Not Used</td><td></td></tr>
<tr><td>6</td><td>4052A</td><td>O</td></tr>
<tr><td>7</td><td>4052B</td><td>O</td></tr>
<tr><td>8</td><td>4052INH</td><td>O</td></tr>
<tr><td>9</td><td>LINE MUTE</td><td>LINE MUTE ON/OFF</td><td>O</td></tr>
<tr><td>10</td><td>P. BASS 1</td><td>SUPER P. BASS1 ON/OFF</td><td>O</td></tr>
<tr><td>11</td><td>P. BASS 2</td><td>SUPER P. BASS2 ON/OFF</td><td>O</td></tr>
<tr><td>12</td><td>VOL. POSI</td><td>MAIN VOL Position</td><td>I</td></tr>
<tr><td>13</td><td>VOL. DOWN</td><td rowspan="2">VOL UP/DOWN (TA 7291S)
Control
<table>
<tr><th></th><th>Pin 14</th><th>Pin 13</th></tr>
<tr><td>UP</td><td>H</td><td>L</td></tr>
<tr><td>DOWN</td><td>L</td><td>H</td></tr>
<tr><td>STOP</td><td>L</td><td>L</td></tr>
</table></td><td>O</td></tr>
<tr><td>14</td><td>VOL. UP</td><td>O</td></tr>
<tr><td>15</td><td>R. VOL. ST</td><td rowspan="3">Not Used</td><td>O</td></tr>
<tr><td>16</td><td>R. VOL.
CLK</td><td>O</td></tr>
<tr><td>17</td><td>R. VOL.
DATA</td><td>O</td></tr>
<tr><td>18</td><td>E/R
TUNER</td><td>System bus TUNER
Enable / Request</td><td>I/O</td></tr>
<tr><td>19</td><td>E/R DAT</td><td>System bus DAT
Enable / Request</td><td>I/O</td></tr>
<tr><td>20</td><td>E/R CT</td><td>System bus TAPE
Enable / Request</td><td>I/O</td></tr>
<tr><td>21</td><td>E/R CD</td><td>System bus CD
Enable / Request</td><td>I/O</td></tr>
<tr><td>22</td><td>E/R GEQ</td><td>System bus GEQ
Enable / Request</td><td>I/O</td></tr>
</table>

<table>
<tr><th>No.</th><th>Pin Name</th><th>Description</th><th>I/O</th></tr>
<tr><td>23</td><td>SD</td><td>System bus DATA</td><td>I/O</td></tr>
<tr><td>24</td><td>SC</td><td>System bus CLOCK</td><td>O</td></tr>
<tr><td>25</td><td>N.C</td><td>Not Used</td><td>I</td></tr>
<tr><td>26</td><td>RMT IN</td><td>Remocon Signal Input Port</td><td>I</td></tr>
<tr><td>27</td><td>GND</td><td>GND</td><td></td></tr>
<tr><td>28</td><td>RESET</td><td>RESET PULSE Terminal</td><td>I</td></tr>
<tr><td>29</td><td>X IN</td><td rowspan="2">Connected to Ceramic resonator
(4MHz).</td><td></td></tr>
<tr><td>30</td><td>X OUT</td><td></td></tr>
<tr><td>31</td><td>N. C</td><td>Not Used</td><td></td></tr>
<tr><td>32</td><td>GND</td><td>GND</td><td></td></tr>
<tr><td>33</td><td rowspan="3">Switching
Destination</td><td rowspan="3">
<table>
<tr><th></th><th>Pin 33</th><th>Pin 34</th><th>Pin 35</th></tr>
<tr><td>SX-P720</td><td>H</td><td>L</td><td>H</td></tr>
<tr><td>SX-P920</td><td>L</td><td>H</td><td>H</td></tr>
</table></td><td>I</td></tr>
<tr><td>34</td><td>I</td></tr>
<tr><td>35</td><td>I</td></tr>
<tr><td>36</td><td></td><td rowspan="8">Not Used</td><td>I</td></tr>
<tr><td>37</td><td></td><td>I</td></tr>
<tr><td>38</td><td></td><td>I</td></tr>
<tr><td>39</td><td></td><td>I</td></tr>
<tr><td>40</td><td></td><td>I</td></tr>
<tr><td>41</td><td></td><td>O</td></tr>
<tr><td>42</td><td></td><td>O</td></tr>
<tr><td>43</td><td></td><td>O</td></tr>
<tr><td>44</td><td>FAN ERR</td><td>FAN ERR Terminal</td><td>I</td></tr>
<tr><td>45</td><td></td><td rowspan="3">Not Used</td><td>O</td></tr>
<tr><td>46</td><td></td><td>O</td></tr>
<tr><td>47</td><td></td><td>O</td></tr>
<tr><td>48</td><td>AD01.
COTROL</td><td>AUDITION CONTROL</td><td>O</td></tr>
<tr><td>49</td><td></td><td>Not used</td><td>O</td></tr>
</table>

No.	Pin Name	Description	I/O
50		Not Used	O
51			O
52	LED AI. B	LED Control	O
53	LED AUDITION		O
54		Not Used	O
55	LED P-BASS2	LED Control	O
56	LED P-BASS1		O
57	LED AI. A		O
58	PHONE IN/OUT	Not Used	I
59		Not Used	O
60			O
61			O
62	RELAY A	Speaker Relay Port	O
63	POWER IND	Power Indicator Port	O
64	POWER RY	Power ON/OFF Relay Port	O

- When POWER is OFF, POWER RY RELAY A, LINE MUTE will be output at the "L" level, and A. REC. OUT MUTE will be output at the "H" level. Other I/O ports will be specified to input, and the output port will be ouput at the "L" level.

7. DISASSEMBLY

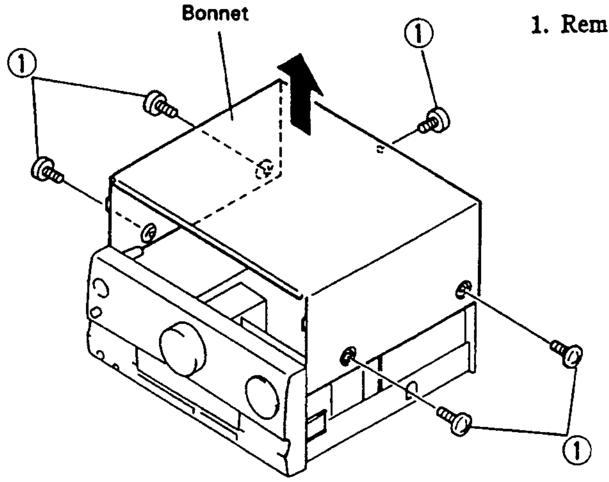


Fig. 1

1. Remove the Bonnet case. (Screw ① × 5)

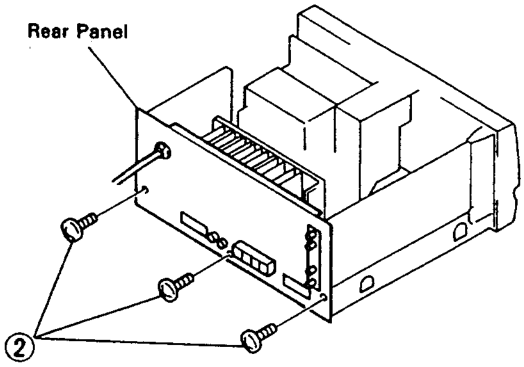

Rear Panel
②

Fig. 2

2. Remove the three screws ② from the rear panel. (Screw ② × 3)

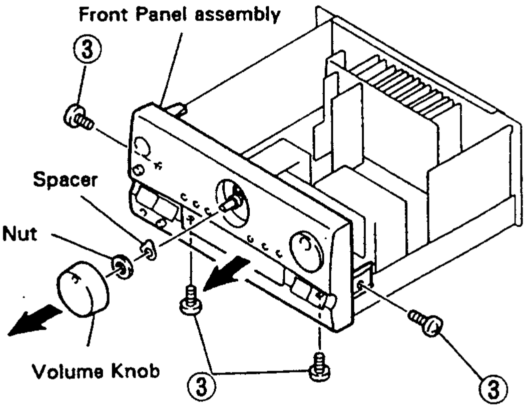

Front Panel assembly
③
Spacer
Nut
Volume Knob
③
③

Fig. 3

3. Remove the Volume knob, nut, spacer in sequence.

4. Remove the four screws ③ from the front panel assembly.
   Remove the front panel assembly.

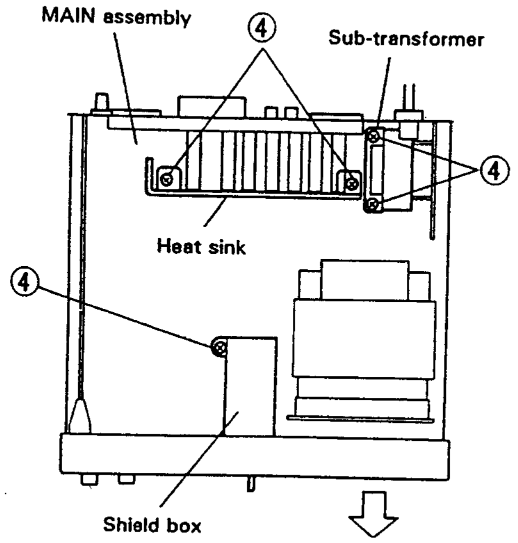

MAIN assembly
④
Sub-transformer
④
Heat sink
④
Shield box
Front

Fig. 4

5. Remove the five screws ④ from the MAIN assembly.
   - Heat sink × 2
   - Sub-transformer × 2
   - Shield box × 1
6. Remove the shield box.

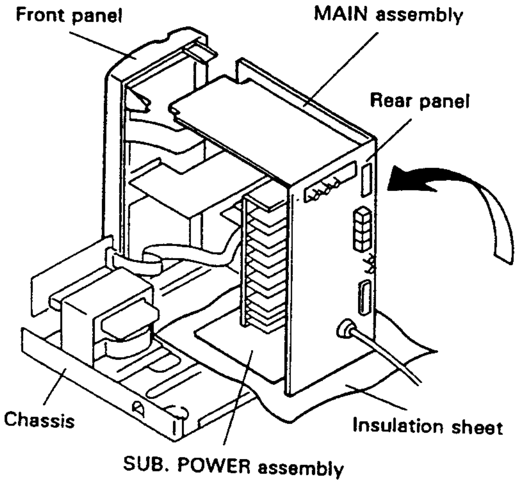

Front panel
MAIN assembly
Rear panel
Chassis
Insulation sheet
SUB. POWER assembly

Fig. 5

7. Lift the front panel assembly and the rear panel. Remove the MAIN assembly from the chassis, and stand it by placing the SUB. POWER assembly at the bottom. Insert the insulation sheet into the space between the SUB. POWER assembly and the chassis.

8. FOR SX-P920/HB, HEWZI AND SX-P720/HB, HEWZI TYPES

NOTES:

- *Part without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)

SX-P920/HB, HEWZI and SX-P920/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		SX-P920/ HE type	SX-P920/ HB type	SX-P920/ HEWZI type	
◉	MAIN assembly	AWZ3719	AWZ3719	AWZ3720	
◉	SUB. POWER assembly	AWZ3727	AWZ3727	AWZ3723	
◉	FR. AMP assembly	AWZ3734	AWZ3734	AWZ3735	
	HEAD. P assembly	Non supply	Non supply	Non supply	∗1
◉	DISPLAY assembly	AWZ3705	AWZ3705	AWZ3706	
◉	VR assembly	AWZ3708	AWZ3708	AWZ3709	
	TUNER Assembly	AWE1226	AWE1226	AWE1225	
⚠	AC Power cord	ADG1019	ADG1084	ADG1012	
	Operating instructions (English, French, German, Italian)	ARC1306	....	....	
	Operating instructions (English, French)	ARE1211	ARE1211	....	
	Operating instructions (German, Italian)	ARC1305	....	ARC1305	

∗1 : The HEAD. P assemblies of HE and HB types are the same.

◉ MAIN ASSEMBLY (AWZ3720)

MAIN assembly (AWZ3720) and MAIN assembly (AWZ3719) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3719	AWZ3720	
	L251, 252	ATH-133	ATH-059	
	L2001, L2002	....	ATH-059	
	C111	CKCYF103Z50	CKCYB103K50	
	C704	CKDYF473Z50	CKCYF473Z50	
	C2007-C2009, C2011	....	CKCYB103K50	
	C2012, C2013	....	CCSQCH470J50	
	C2018	....	CQMA473K250	
	C2019	....	CKSQYB103K50	
	C2020, C2021	....	CCSQCH101J50	
	C2022, C2023	....	CKSQYB473K50	
	R251, R252	RD1/4PMFL100J	RD1/4PMFL101J	
	R2003	RS1/10S000J	....	

◉ FR. AMP ASSEMBLY (AWZ3735)

FR. AMP assembly (AWZ3735) and FR. AMP assembly (AWZ3734) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3734	AWZ3735	
	C2024, C2025	....	CCSQCH101J50	

HEAD. P ASSEMBLY (HEWZI type)

HEAD. P assembly (HEWZI type) and HEAD. P assembly (HE type) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		HE type	HEWZI type	
	C2501, C2502	....	CKSQYB473K50	

◉ DISPLAY ASSEMBLY (AWZ3706)

DISPLAY assembly (AWZ3706) and DISPLAY assembly (AWZ3705) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3705	AWZ3706	
	C1001	CKDYF473Z50	CKCYF473Z50	
	C1002	CKDYF223Z50	CKCYF223Z50	
	C1006	CKDYB102K50	CKCYB102K50	
	R1025	....	RS1/10S473J	
	R1033	RS1/10S473J	....	

◉ VR ASSEMBLY (AWZ3709)

VR assembly (AWZ3709) and VR assembly (AWZ3708) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3708	AWZ3709	
	C323	CKDYX104M25	CKCYX104M25	
	C2305, C2306	....	CCSQCH101J50	
	C2307, C2308	....	CCSQCH220J50	

◉ SUB. POWER ASSEMBLY (AWZ3723)

SUB. POWER assembly (AWZ3723) and SUB. POWER assembly (AWZ3727) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3727	AWZ3723	
	C2026	....	CQMA473K250	

TUNER ASSEMBLY (AWE1225)

TUNER assembly (AWE1225) and TUNER assembly (AWE1226) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWE1226	AWE1225	
	Q903, Q904	RN1203	....	
	Q906	RN2201	....	
	D902, D905−D907	HSS104−02	....	
	D903, D904	1SS85	....	
	L906	....	LAU330K	
	TC901	....	ACM−018	
	C908	....	CKDYF223Z50	
	C909	....	CKDYF103Z50	
	C913, C915	CKDYF223Z50	....	
	C919	CKDYF223Z50	CKDYF473Z50	
	C922	CKDYF223Z50	CKPUYF223Z50	
	C952, C953	CKDYB122K50	CKDYB102K50	
	C961, C962	CKDYB272K50	CKDYB392K50	
	C968	CCDSL101J50	CCDCH101J50	
	C969	....	CCDCH270J50	
	R911	RD1/8PM104J	....	
	R914, R915, R919	RD1/8PM681J	....	
	R917	RD1/8PM102J	....	
	R920	RD1/8PM103J	RD1/8PM472J	
	R921	RD1/8PM392J	....	
	R922	....	RD1/8PM680J	
	R924	RD1/8PM331J	RD1/8PM561J	
	R925	....	RD1/8PM221J	
	R955	RD1/8PM152J	RD1/8PM122J	
	R959, R960	RD1/8PM392J	RD1/8PM682J	
	Antenna terminal 4−P	AKA1010	....	
	Antenna terminal 2−P	....	AKA1012	
	2 Serial F. E. module assembly	AXQ1002	....	
	4 Serial F. E. module assembly	....	AXQ1004	
	AM RF Tuning block	AXX1012	....	
	AM RF Tuning block	AXX1013	....	
	AM RF Tuning block	....	AXX1014	

8.2 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P720/HB AND HEWZI TYPES)

SX-P720/HB, HEWZI and SX-P720/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		SX-P720/ HE type	SX-P720/ HB type	SX-P720/ HEWZI type	
◉	MAIN assembly	AWZ3714	AWZ3714	AWZ3715	
◉	SUB. POWER assembly	AWZ3722	AWZ3722	AWZ3723	
◉	FR. AMP assembly	AWZ3730	AWZ3730	AWZ3731	
	HEAD. P assembly	Non supply	Non supply	Non supply	*1
◉	DISPLAY assembly	AWZ3701	AWZ3701	AWZ3702	
◉	VR assembly	AWZ3708	AWZ3708	AWZ3709	*2
	TUNER Assembly	AWE1226	AWE1226	AWE1225	*3
⚠	AC Power cord	ADG1019	ADG1084	ADG1012	
	Operating instructions (English, French, German, Italian)	ARC1306	....	....	
	Operating instructions (English, French)	ARE1211	ARE1211	....	
	Operating instructions (German, Italian)	ARC1305	....	ARC1305	

*1 : The HEAD. P assemblies of SX-P720/HE and HB types are the same as that of SX-P920/HE and HB types. The HEAD. P assembly of SX-P720/HEWZI type is the same as that of SX-P920/HEWZI types. Refer to page 55, "8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)".

*2 : The VR assemblies of SX-P720/HE and HB types are the same as that of SX-P920/HE and HB types. The VR assembly of SX-P720/HEWZI type is the same as that of SX-P920/HEWZI type. Refer to page 55, "8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)".

*3 : The TUNER assemblies of SX-P720/HE and HB types are the same as that of SX-P920/HE and HB types. The TUNER assembly of SX-P720/HEWZI type is the same as that of SX-P920/HEWZI type. Refer to page 56, "8.1 CONTRAST OF MISCELLANEOUS PARTS (FOR SX-P920/HB AND HEWZI TYPES)".

◉ MAIN ASSEMBLY (AWZ3715)

MAIN assembly (AWZ3715) and MAIN assembly (AWZ3714) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3714	AWZ3715	
	L251, 252	ATH-133	ATH-059	
	L2001, L2002	....	ATH-059	
	C704	CKDYF473Z50	CKCYF473Z50	
	C1023, C2012	....	CCSQCH470J50	
	C2007-C2009, C2011	....	CKCYB103K50	
	C2018	....	CQMA473K250	
	C2019	....	CKSQYB103K50	
	C2020, C2021, C2024, C2025	....	CCSQCH101J50	
	C2022, C2023	....	CKSQYB473K50	
	R251, R252	RD1/4PMFL100J	RD1/4PMFL101J	
	R2001, R2002	....	RS1/10S000J	

◉ SUB. POWER ASSEMBLY (AWZ3723)

SUB. POWER assembly (AWZ3723) and SUB. POWER assembly (AWZ3722) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3722	AWZ3723	
	C2026	....	CQMA473K250	

◉ FR. AMP ASSEMBLY (AWZ3731)

FR. AMP assembly (AWZ3731) and FR. AMP assembly (AWZ3730) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3730	AWZ3731	
	C2024, C2025	....	CCSQCH101J50	

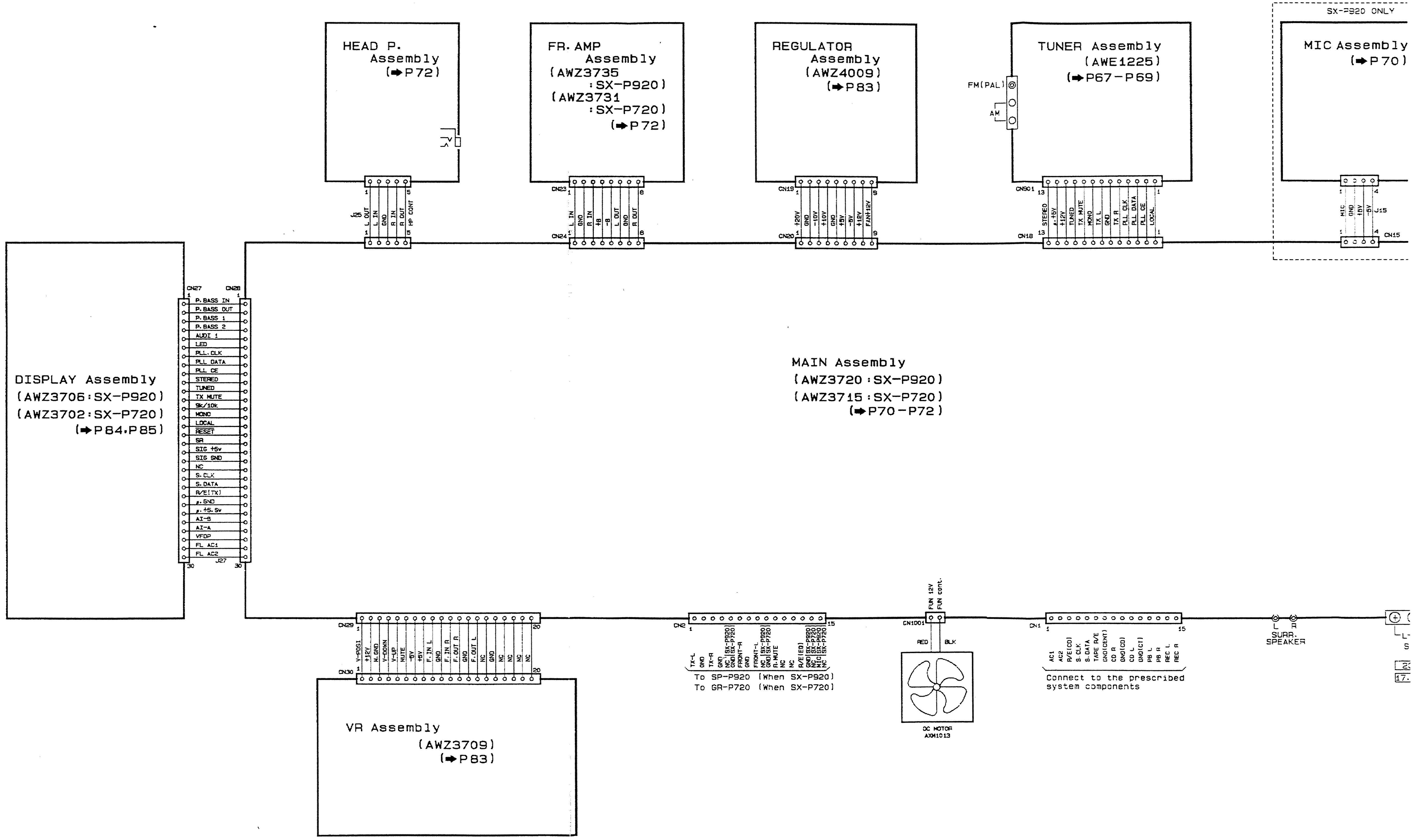
◉ DISPLAY ASSEMBLY (AWZ3702)

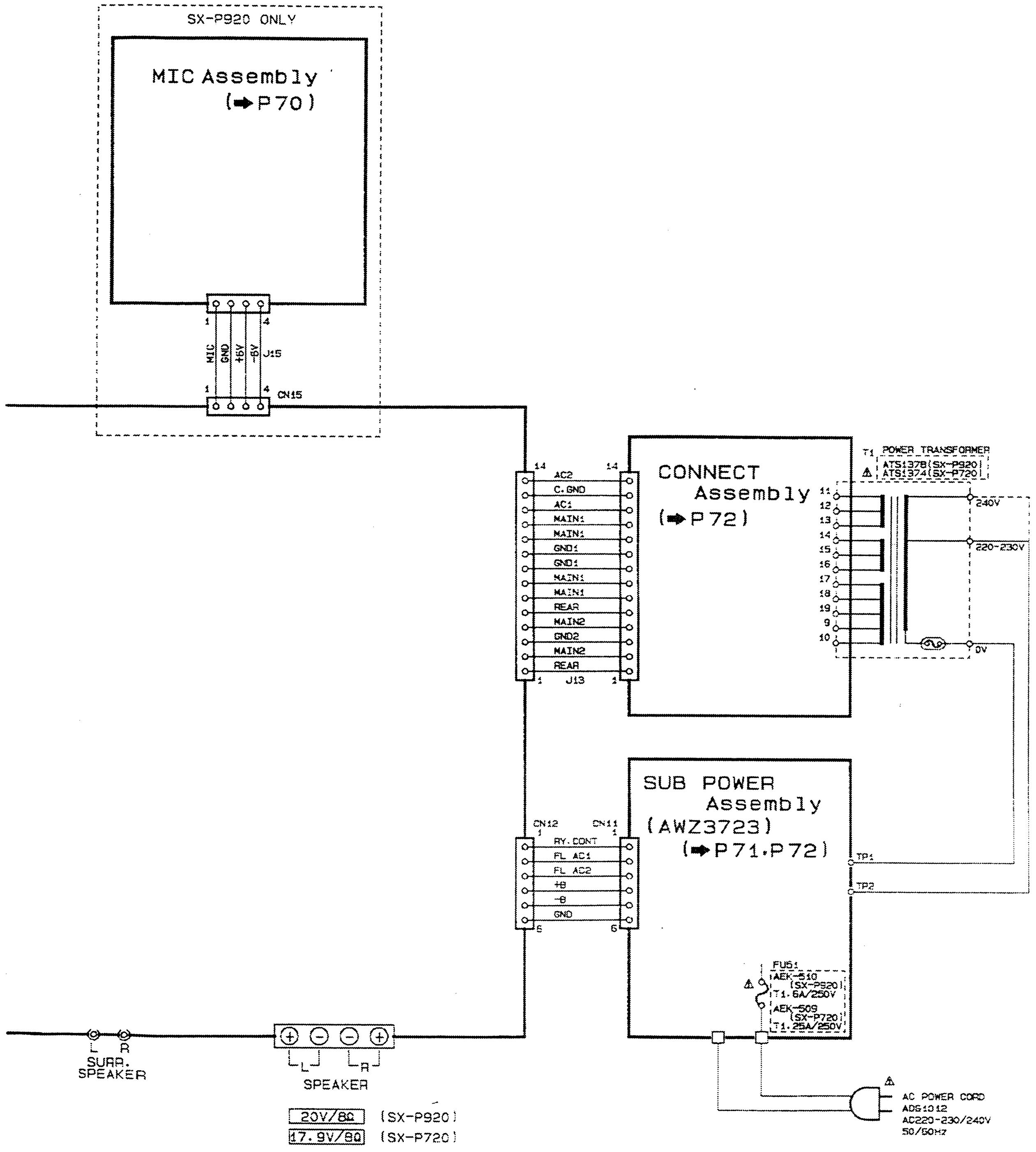
DISPLAY assembly (AWZ3702) and DISPLAY assembly (AWZ3701) have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3701	AWZ3702	
	C1001	CKDYF473Z50	CKCYF473Z50	
	C1002	CKDYF223Z50	CKCYF223Z50	
	C1006	CKDYB102K50	CKCYB102K50	
	R1025	....	RS1/10S473J	
	R1033	RS1/10S473J	....	

8.3 SCHEMATIC DIAGRAMS AND PCB CONNECTION DIAGRAMS (SX–P920/HEWZI AND SX–P720/HEWZI TYPES)

8.3.1 Over All Schematic Diagram


HEAD P. Assembly (➡P72)
J25
L OUT
L IN
GND
R IN
R OUT
HP CONT
FR. AMP Assembly
(AWZ3735 : SX–P920)
(AWZ3731 : SX–P720)
(➡P72)
CN23
CN24
L IN
GND
R IN
+B
–B
L OUT
GND
R OUT
REGULATOR Assembly
(AWZ4009)
(➡P83)
CN19
CN20
+20V
GND
–10V
+10V
GND
+5V
–5V
+12V
FAN+12V
FM(PAL)
AM
TUNER Assembly
(AWE1225)
(➡P67–P69)
CN901
CN18
STEREO
μ.+5V
+12V
TUNED
TX MUTE
MONO
TX L
GND
TX R
PLL CLK
PLL DATA
PLL CE
LOCAL
SX-P920 ONLY
MIC Assembly
(➡P70)
MIC
GND
+8V
–8V
J15
CN15
DISPLAY Assembly
(AWZ3706:SX–P920)
(AWZ3702:SX–P720)
(➡P84,P85)
CN27
CN28
P.BASS IN
P.BASS OUT
P.BASS 1
P.BASS 2
AUDI 1
LED
PLL.CLK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9k/10k
MONO
LOCAL
RESET
SR
SIG +5v
SIG GND
NC
S.CLK
S.DATA
R/E(TX)
μ.GND
μ.+5.5v
AI–S
AI–A
VFDP
FL AC1
FL AC2
J27
MAIN Assembly
(AWZ3720 : SX–P920)
(AWZ3715 : SX–P720)
(➡P70–P72)
CN29
CN30
V-POSI
+12V
M.GND
V-DOWN
V-UP
MUTE
–5V
+5V
F.IN L
GND
F.IN R
F.OUT R
GND
F.OUT L
NC
GND
NC
NC
NC
NC
VR Assembly
(AWZ3709)
(➡P83)
CN2
TX-L
GND
TX-R
GND
NC (SX-P920) GND (SX-P720)
FRONT-R
GND
FRONT-L
NC (SX-P920) GND (SX-P720)
R-MUTE
NC
NC
R/E(EQ)
GND (SX-P920) NC (SX-P720)
MIC (SX-P920) NC (SX-P720)
To SP-P920 (When SX-P920)
To GR-P720 (When SX-P720)
FUN 12V
FUN cont.
CN1001
RED
BLK
DC MOTOR
AXM1013
CN1
AC1
AC2
R/E(CD)
S.CLK
S.DATA
TAPE R/E
GND(CENT)
CD R
GND(CD)
CD L
GND(CT)
PB L
PB R
REC L
REC R
Connect to the prescribed system components
L R
SURR. SPEAKER


SX-P920 ONLY
MIC Assembly
(➡P70)
MIC
GND
+6V
-6V
J15
CN15
CONNECT Assembly
(➡P72)
AC2
C.GND
AC1
MAIN1
MAIN1
GND1
GND1
MAIN1
MAIN1
REAR
MAIN2
GND2
MAIN2
REAR
J13
T1 POWER TRANSFORMER
ATS1378(SX-P920)
ATS1374(SX-P720)
240V
220-230V
0V
SUB POWER Assembly
(AWZ3723)
(➡P71,P72)
CN12
CN11
RY.CONT
FL AC1
FL AC2
+B
-B
GND
TP1
TP2
FU51
AEK-510 (SX-P920) T1.6A/250V
AEK-509 (SX-P720) T1.25A/250V
AC POWER CORD
ADG1012
AC220-230/240V
50/60Hz
L R
SURR. SPEAKER
L
R
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)

1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
indication without voltage is 50V except electrolytic capacitor.

3 VOLTAGE, CURRENT:
▭ : Signal voltage at (SX-P920 : 50W + 50W, SX-P720 : 40W + 40W, 8Ω) output (1kHz)
▭ : DC voltage (V) at no input signal
[a] and [b] in the circuit diagram describe the following :
a = SX-P920
b = SX-P720
None = SX-P920 and SX-P720
Value in ( ) is DC voltage at rated power.
⇦ mA : DC current at no input signal
mV : Signal voltage at FM 1kHz ±75kHz

4 OTHERS:
➡ : Signal route.
⊘ : Adjusting point
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
✱ marked capacitors and resistors have parts numbers.
▼ (RED) : TEST POINT
This is the basic schematic diagram, but the actual circuit may vary due to improvements in design

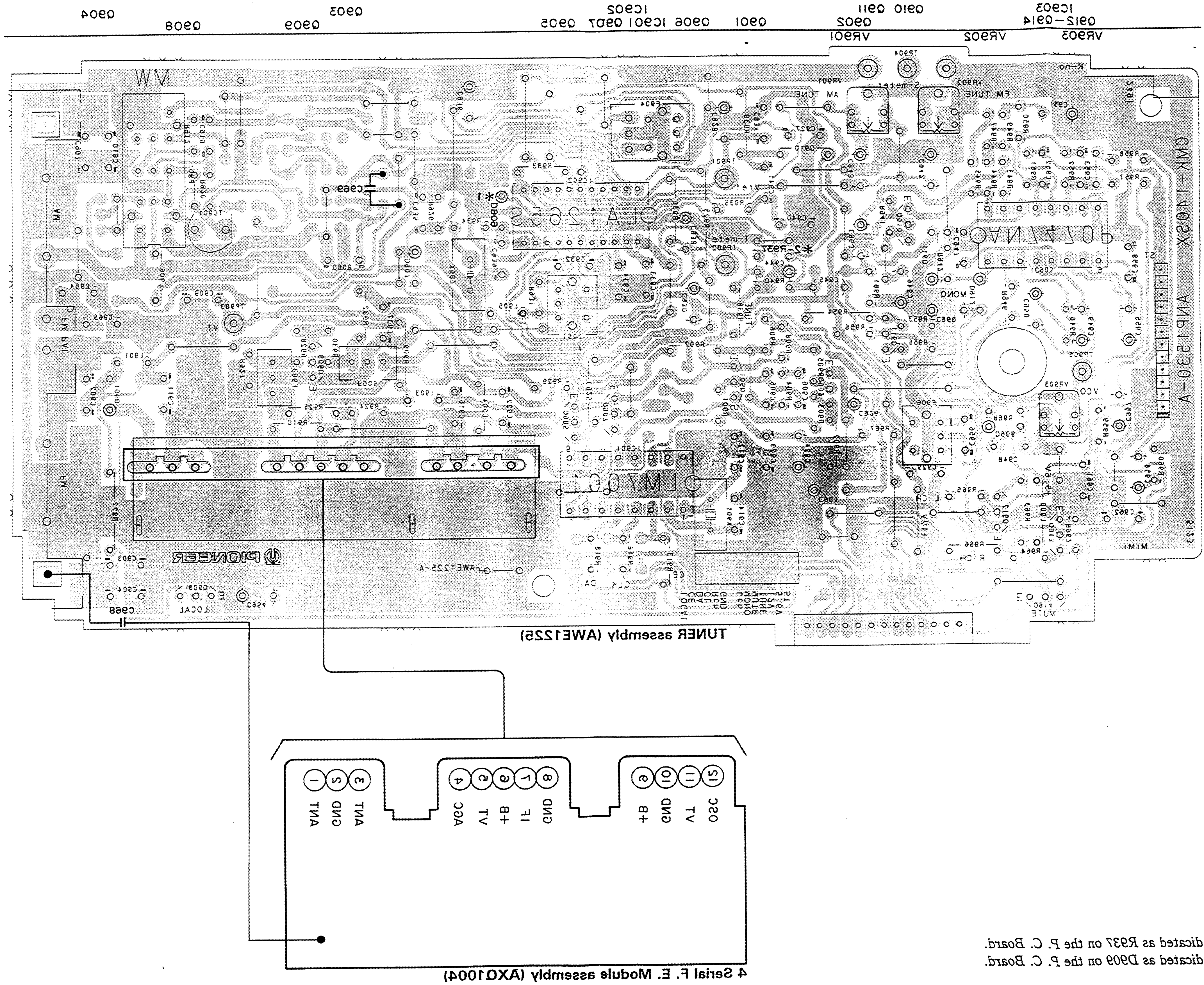
5. SWITCHES (The underline indicates the switch position)

DISPLAY Assembly

S701	LD
S702	VCR/DAT
S703	PHONO
S704	TAPE
S705	TUNER
S706	CD
S709	POWER STANDBY/ON
S710	AI. A
S711	SUPER P. BASS (SX-P920 ONLY)
S712	AI. B
S713	AI. MEMORY
S714	AUDITION (SX-P920 ONLY)
S715	SUPER P. BASS (SX-P720 ONLY)
S1001	BAND
S1002	M. SCAN
S1003	CLOCK ADJ
S1005	MEMORY
S1006	SET
S1008	LOCAL
S1009	WAKE UP
S1010	FREQ/STATION
S1011	REC
S1030	TUNING JOG

This P. C. B. connection diagram is viewed from the foil side.

8.3.2 TUNER assembly

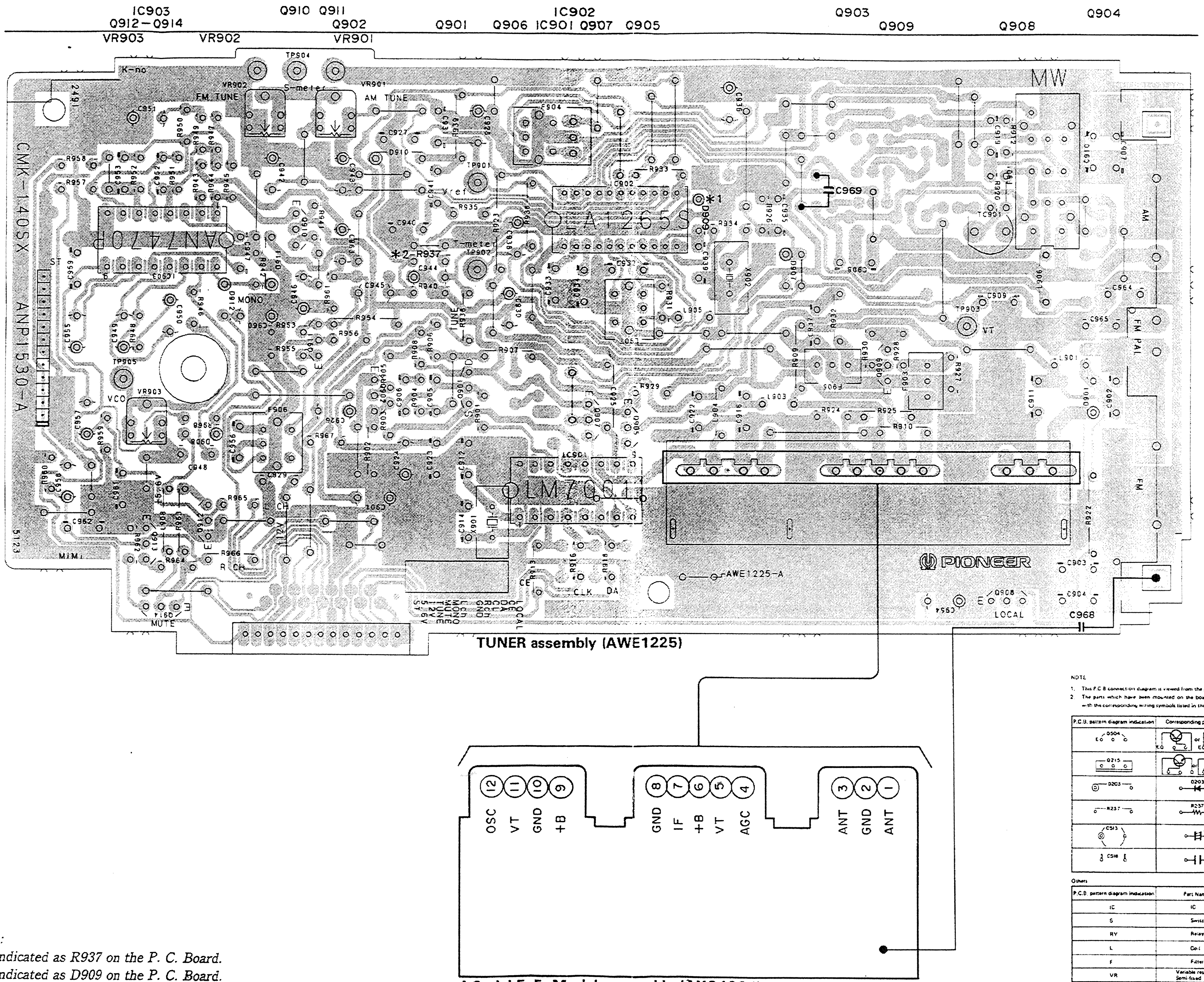

Q904
Q908
Q909
Q903
Q905
Q907
IC901
IC902
Q906
Q901
Q902
Q910
Q911
IC903
Q912–Q914
VR901
VR902
VR903
MW
AM
FM
FM TUNE
AM TUNE
S-meter
MONO
VCO
LOCAL
MUTE
L CH
R CH
C969
C968
AWE1225-A
PIONEER
LA1260
LM7001
LA3450
CWX-1405A-ANP1530-A
ANT
GND
ANT
AGC
TV
B+
IF
GND
B+
GND
TV
OSC

TUNER assembly (AWE1225)

4 Serial F. E. Module assembly (AXQ1004)

NOTE:
*1 is indicated as R937 on the P. C. Board.
*2 is indicated as D909 on the P. C. Board.

This P. C. B connection diagram is viewed from the parts mounted side.


IC903
Q912－Q914
VR903
VR902
Q910 Q911
Q902
VR901
Q901
Q906 IC901 Q907
IC902
Q905
Q903
Q909
Q908
Q904
CMK-140SX
ANP1530-A
AN7470P
LA1265
LM7001
FM TUNE
AM TUNE
S-meter
T-meter
VCO
MONO
ST
MUTE
MW
AM
FM
FM PAL
LOCAL
CLK
DA
CE
C968
C969
AWE1225-A
PIONEER
*1
*2 R937
12 OSC
11 VT
10 GND
9 +B
8 GND
7 IF
6 +B
5 VT
4 AGC
3 ANT
2 GND
1 ANT

TUNER assembly (AWE1225)

4 Serial F.E. Module assembly (AXQ1004)

NOTE :

**1 is indicated as R937 on the P. C. Board.*

**2 is indicated as D909 on the P. C. Board.*

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

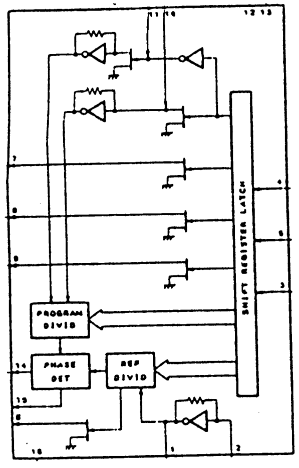
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarized)
C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

IC901 LM7001

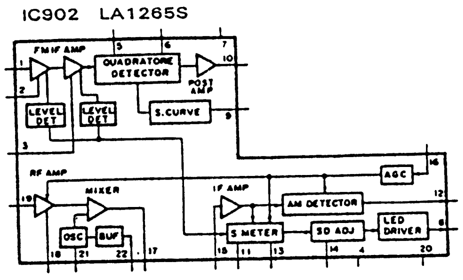


PROGRAM DIVID
PHASE DET
REF DIVID
SHIFT REGISTER LATCH

IC901 (LM7001)

Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 (1.7 when AM)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6	0	14	0.7
7	—	15	—
8	0	16	0

IC902 LA1265S

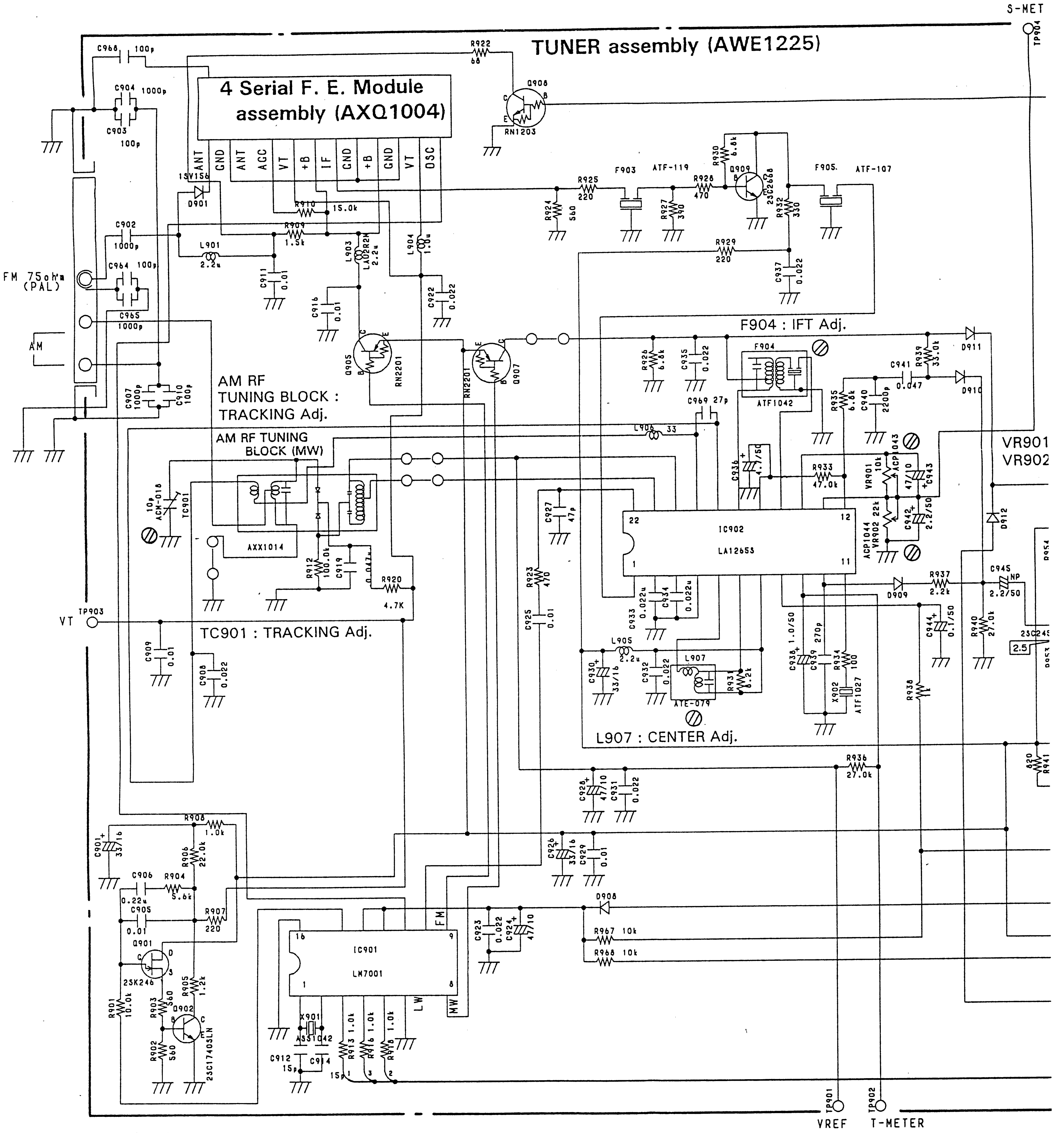


FM IF AMP
QUADRATURE DETECTOR
POST AMP
LEVEL DET
LEVEL DET
S.CURVE
RF AMP
MIXER
OSC
BUF
IF AMP
AGC
AM DETECTOR
S METER
SD ADJ
LED DRIVER

IC902 (LA1265S)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltag
1	2.3	10	2.8	17	0
2	2.3	11	1.5		12.0 (whe
3	2.3	12	1.5	18	0
4	0	13	1.4 (when MAX)		2.0 (whe
5	12.0	14	1.4 (when MAX)	19	0
6	12.0		0 (when AM)		2.0 (whe
7	12.0	15	2.3	20	3.8
8	0 (T)		1.1 (when AM)	21	3.8
	5.1 (D)	16	1.4	22	2.8
9	3.8				1.5 (whe

NOTE :
(T) when TUNE IND. is ON, (D) when TUNE IND. is OFF.



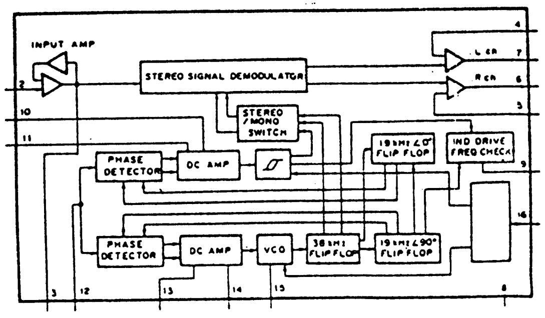
TUNER assembly (AWE1225)
4 Serial F. E. Module assembly (AXQ1004)
ANT GND ANT AGC VT +B IF GND +B GND VT OSC
FM 75ohm (PAL)
AM
AM RF TUNING BLOCK : TRACKING Adj.
AM RF TUNING BLOCK (MW)
AXX1014
TC901 : TRACKING Adj.
F904 : IFT Adj.
L907 : CENTER Adj.
IC902 LA1265S
IC901 LM7001
Q901 2SK246
Q902 2SC1740SLN
Q905 RN2201
Q907 RN2201
Q908 RN1203
Q909 2SC2458
F903 ATF-119
F905 ATF-107
F904 ATF1042
L907 ATE-079
X901 A351042
X902 ATF1027
VR901 VR902
S-MET TP904
VT TP903
VREF TP901
T-METER TP902
FM LW MW

NOTE :
The TUNER assemblies of SX−P920 and SX−P720 types are the same.

Pin No.	Voltage	Pin No.	Voltage
10	2.8	17	0
11	1.5		12.0 (when AM)
12	1.5	18	0
13	1.4 (when MAX)		2.0 (when AM)
14	1.4 (when MAX)	19	0
	0 (when AM)		2.0 (when AM)
15	2.3	20	3.8
	1.1 (when AM)	21	3.8
16	1.4	22	2.8
			1.5 (when AM)

, (D) when TUNE IND. is OFF.

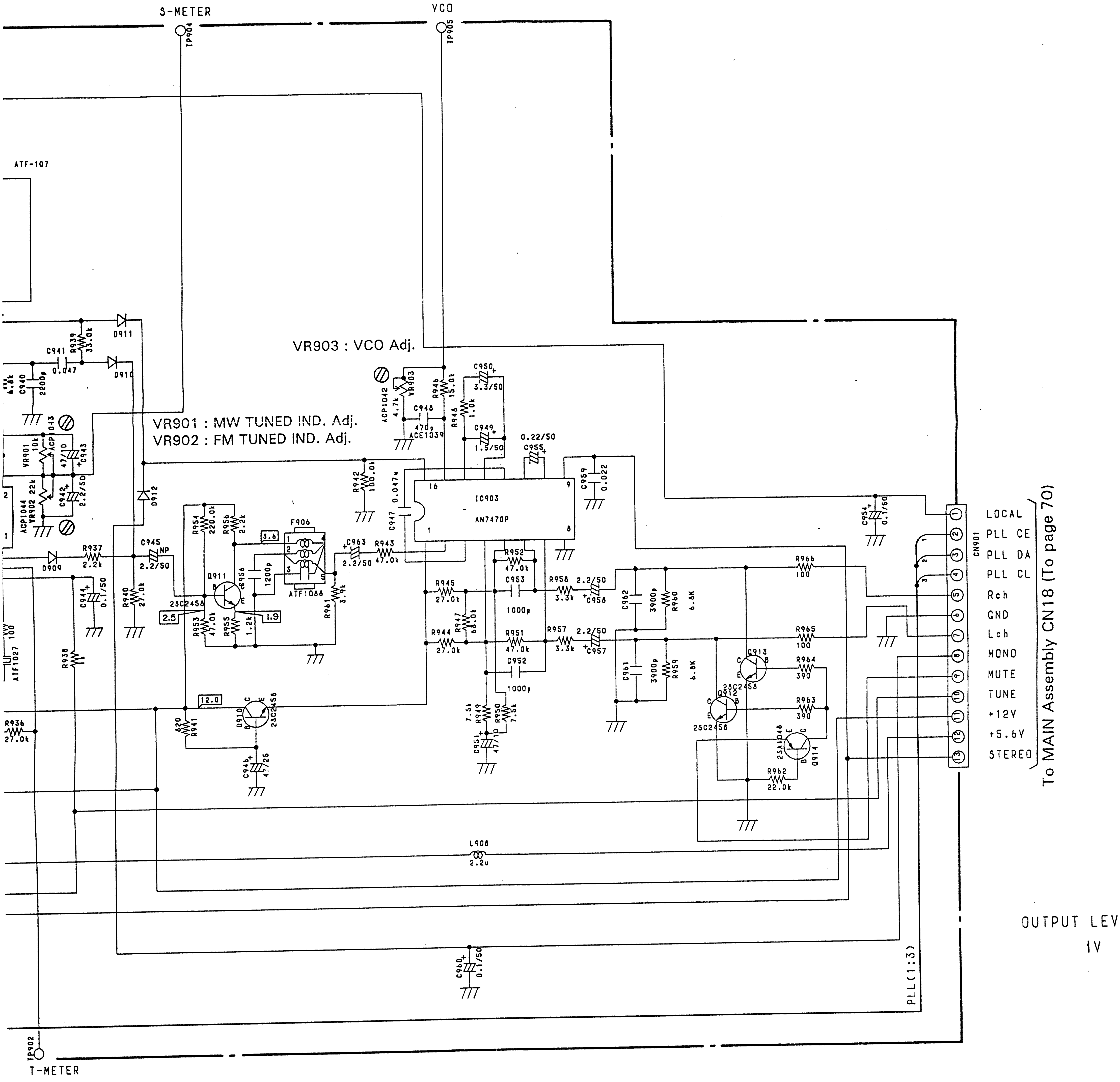
IC903 AN7470P



INPUT AMP
STEREO SIGNAL DEMODULATOR
STEREO /MONO SWITCH
PHASE DETECTOR
DC AMP
19kHz∠0° FLIP FLOP
IND DRIVE FREQ CHECK
PHASE DETECTOR
DC AMP
VCO
38kHz FLIP FLOP
19kHz∠90° FLIP FLOP
L ch
R ch
2
10
11
3
12
13
14
15
8
16
9
4
7
6
5

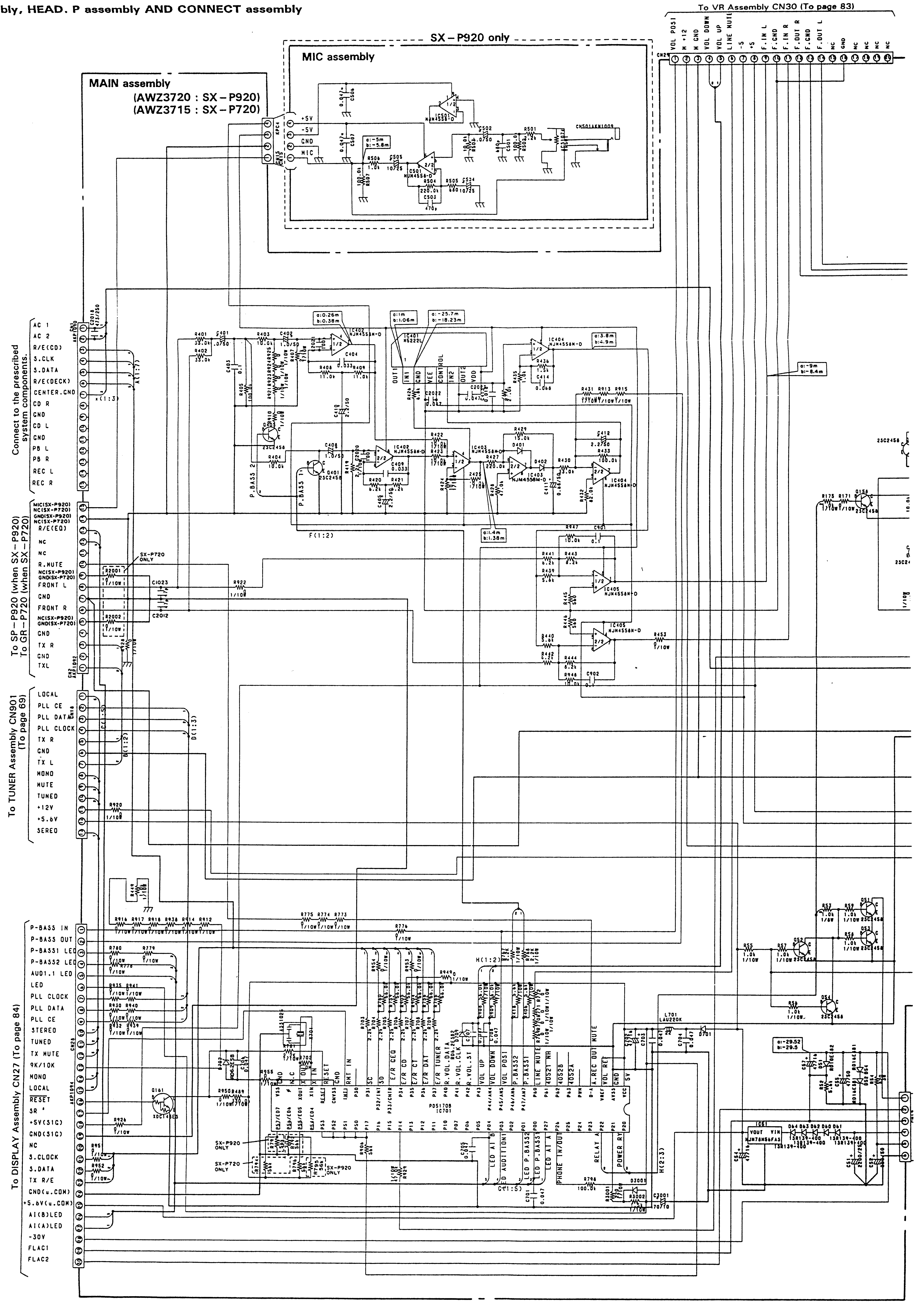
IC903 (AN7470P)

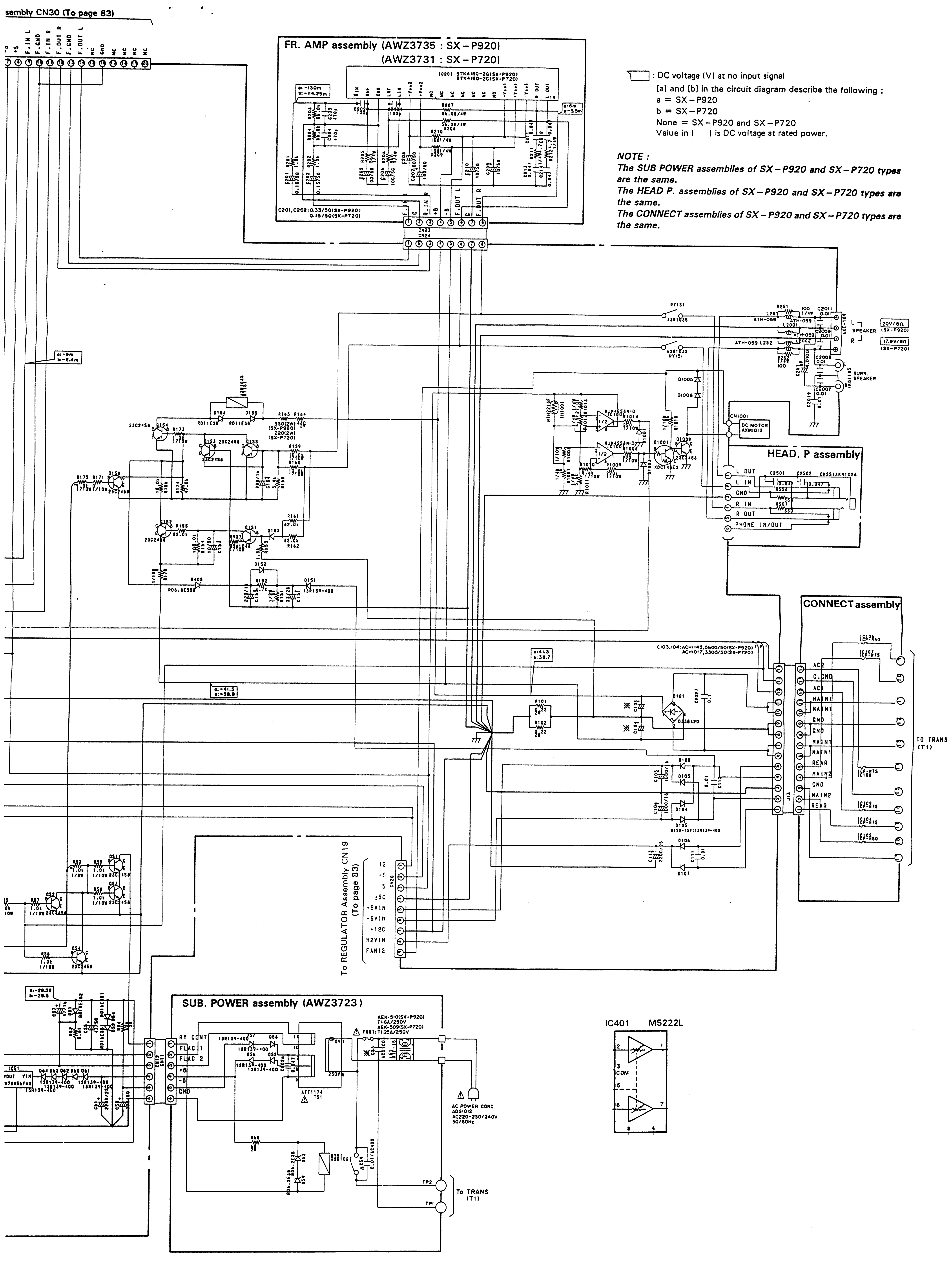
Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6 (when STEREO)	16	0
3	6.1				11.4 (when AM)
4	8.9	10	2.6		
5	8.9	11	2.6		4.0 (when MONO)
6	3.9	12	2.6		
7	3.9	13			
8	0	14	2.6		



S-METER
TP904
VCO
TP905
ATF-107
VR903 : VCO Adj.
VR901 : MW TUNED IND. Adj.
VR902 : FM TUNED IND. Adj.
IC903
AN7470P
D911
D910
D912
D909
C941 0.047
R939 33.0k
C940 2200p
VR901 10k ACP1043
C943 47/10
C942 2.2/50
VR902 22k ACP1044
R937 2.2k
C945 NP 2.2/50
C944 0.1/50
R940 27.0k
R938
ATF1027
R936 27.0k
R954 220.0k
R956 2.2k
F906
3.6
Q911 2SC2458
C956 1200p
ATF1088
R961 3.9k
R953 47.0k
R955 1.2k
2.5
1.9
12.0
R941 820
Q910 2SC2458
C946 47/25
VR903 4.7k ACP1042
C948 470p ACE1039
R946 15.0k
R948 1.0k
C950 3.3/50
C949 1.5/50
C955 0.22/50
C959 0.022
R942 100.0k
C947 0.047m
C963 2.2/50
R943 47.0k
R952 47.0k
C953 1000p
R945 27.0k
R947 68.0k
R944 27.0k
R951 47.0k
C952 1000p
R949 7.5k
R950 7.5k
C951 47/10
R958 3.3k
C958 2.2/50
R957 3.3k
C957 2.2/50
C962 3900p
R960 6.8K
C961 3900p
R959 6.8K
C954 0.1/50
R966 100
R965 100
R964 390
R963 390
Q913 2SC2458
Q912 2SC2458
Q914 2SA1048
R962 22.0k
L908 2.2u
C960 0.1/50
PLL(1:3)
CN901
LOCAL
PLL CE
PLL DA
PLL CL
Rch
GND
Lch
MONO
MUTE
TUNE
+12V
+5.6V
STEREO
To MAIN Assembly CN18 (To page 70)
OUTPUT LEV
1V
TP902
T-METER

8.3.3 MAIN assembly, SUB. POWER assembly, FR. AMP assembly, MIC assembly, HEAD. P assembly AND CONNECT assembly

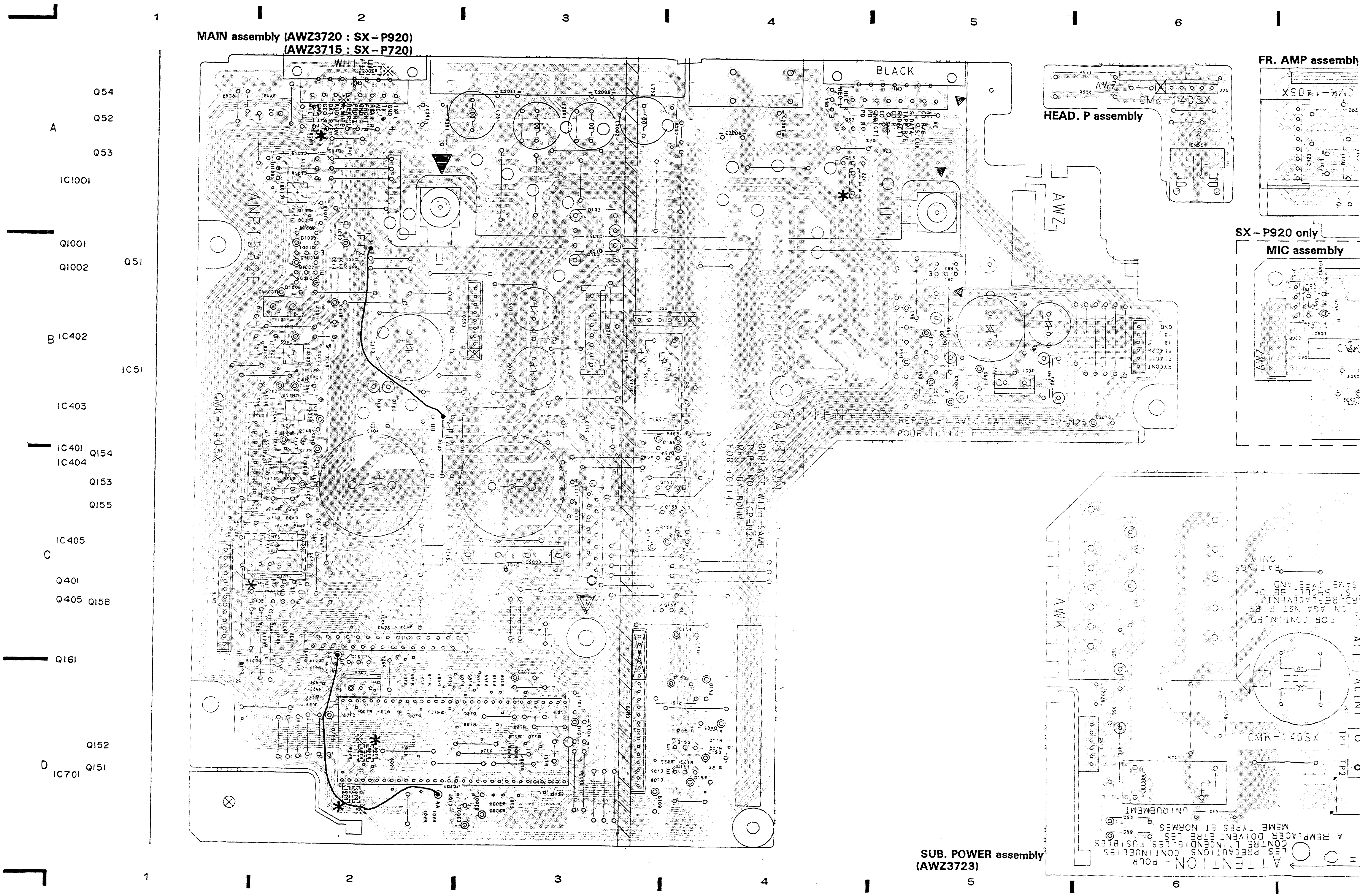

To VR Assembly CN30 (To page 83)
VOL POSI
M +12
M GND
VOL DOWN
VOL UP
LINE MUTE
-5
+5
F.IN L
F.GND
F.IN R
F.OUT R
F.GND
F.OUT L
NC
GND
NC
NC
NC
CN29
SX-P920 only
MIC assembly
MAIN assembly
(AWZ3720 : SX-P920)
(AWZ3715 : SX-P720)
KPC4
CN15
+5V
-5V
GND
MIC
IC501 NJM4558-D
CN501AKN1009
Connect to the prescribed system components.
CN1
AC 1
AC 2
R/E(CD)
S.CLK
S.DATA
R/E(DECK)
CENTER.GND
CD R
GND
CD L
GND
PB L
PB R
REC L
REC R
To SP-P920 (when SX-P920)
To GR-P720 (when SX-P720)
CN2
MIC(SX-P920)
NC(SX-P720)
GND(SX-P920)
NC(SX-P720)
R/E(EQ)
NC
NC
R.MUTE
NC(SX-P920)
GND(SX-P720)
FRONT L
GND
FRONT R
NC(SX-P920)
GND(SX-P720)
GND
TX R
GND
TXL
SX-P720 ONLY
To TUNER Assembly CN901 (To page 69)
CN18
LOCAL
PLL CE
PLL DATA
PLL CLOCK
TX R
GND
TX L
MONO
MUTE
TUNED
+12V
+5.6V
SEREO
IC401 M5222L
IC402 NJM4558M-D
IC403 NJM4558M-D
IC404 NJM4558M-D
IC405 NJM4558M-D
Q401 2SC2458
P.BASS 1
P.BASS 2
OUT1
IN1
GND
VEE
CONTROL
IN2
OUT2
VDD
F(1:2)
A(1:7)
x(1:3)
B(1:2)
C(1:5)
D(1:3)
To DISPLAY Assembly CN27 (To page 84)
CN26
P-BASS IN
P-BASS OUT
P-BASS1 LED
P-BASS2 LED
AUDI.1 LED
LED
PLL CLOCK
PLL DATA
PLL CE
STEREO
TUNED
TX MUTE
9K/10K
MONO
LOCAL
RESET
SR
+5V(SIC)
GND(SIC)
NC
S.CLOCK
S.DATA
TX R/E
GND(u.COM)
+5.6V(u.COM)
AI(B)LED
AI(A)LED
-30V
FLAC1
FLAC2
Q161 XDC143ES
IC701 PD5170B
SX-P920 ONLY
SX-P720 ONLY
H(1:2)
H(2:3)
C(1:5)
L701 LAU220K
D701
IC51 NJM78M06FA
Q51 2SC2458
Q52 2SC2458
Q53 2SC2458
Q54 2SC2458
Q158 2SC2458
a:-29.52
b:-29.5
a:-9m
b:-8.4m
a:3.8m
b:4.9m
a:0.26m
b:0.36m
a:1m
b:1.06m
a:-25.7m
b:-18.23m
a:1.4m
b:1.38m
a:-5m
b:-5.8m

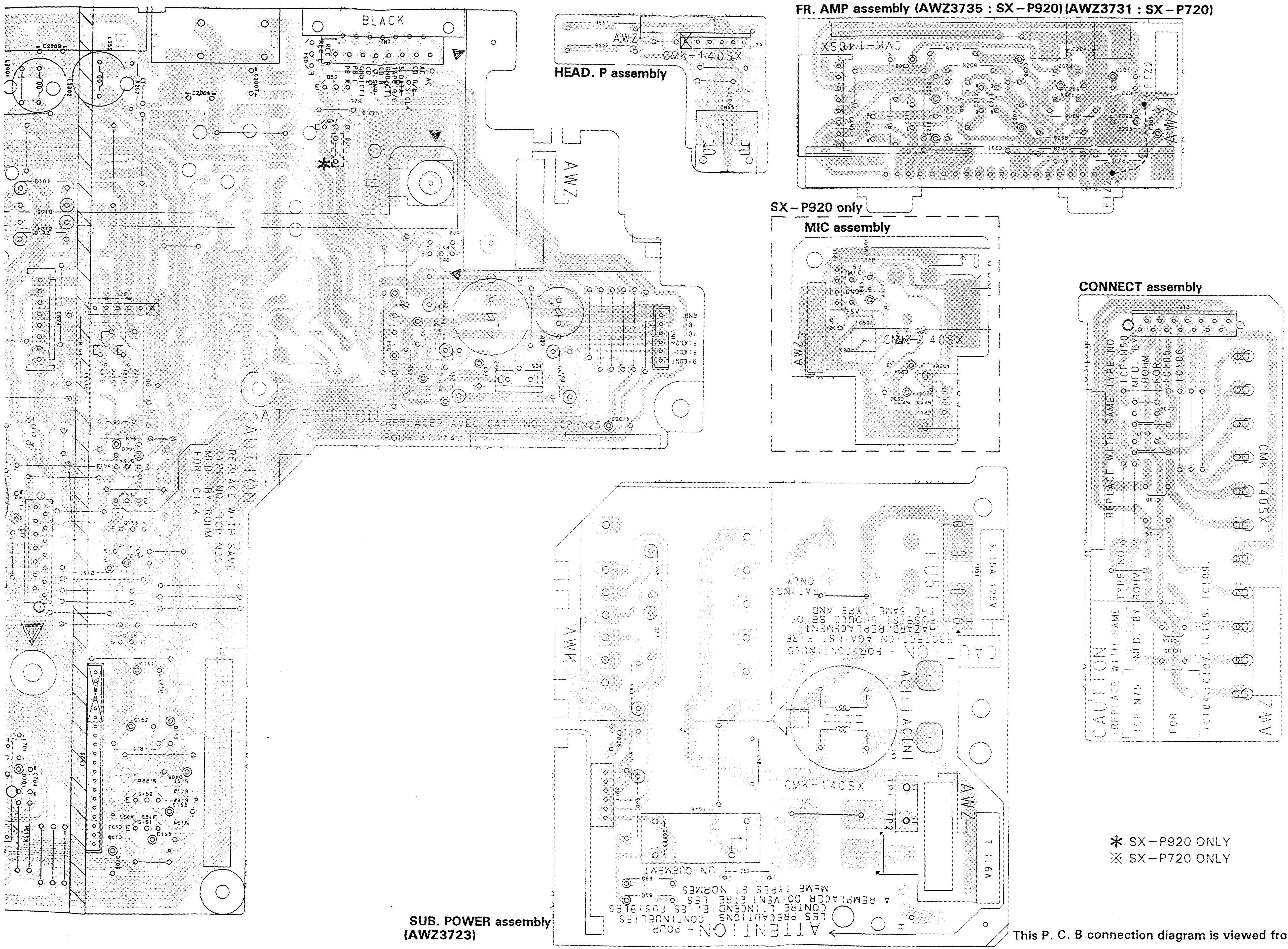

sembly CN30 (To page 83)
FR. AMP assembly (AWZ3735 : SX-P920)
(AWZ3731 : SX-P720)
IC201 STK4160-2G(SX-P920) STK4160-2G(SX-P720)
C201,C202:0.33/50(SX-P920) 0.15/50(SX-P720)
CN23
CN24
SPEAKER
20V/8Ω (SX-P920)
17.9V/8Ω (SX-P720)
SURR. SPEAKER
DC MOTOR AXM1013
HEAD. P assembly
CONNECT assembly
C103,104:ACH1145,5600/50(SX-P920) ACH1017,3300/50(SX-P720)
TO TRANS (T1)
To REGULATOR Assembly CN19 (To page 83)
SUB. POWER assembly (AWZ3723)
AC POWER CORD ADG1012 AC220-230/240V 50/60Hz
To TRANS (T1)
IC401 M5222L

▭ : DC voltage (V) at no input signal

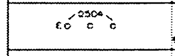
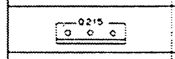
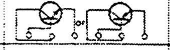
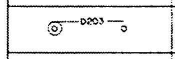
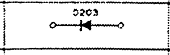
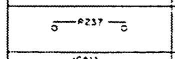
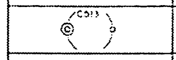
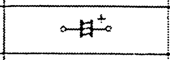
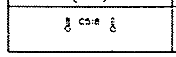
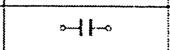
[a] and [b] in the circuit diagram describe the following :
a = SX－P920
b = SX－P720
None = SX－P920 and SX－P720
Value in ( ) is DC voltage at rated power.

NOTE :
The SUB POWER assemblies of SX－P920 and SX－P720 types are the same.
The HEAD P. assemblies of SX－P920 and SX－P720 types are the same.
The CONNECT assemblies of SX－P920 and SX－P720 types are the same.


MAIN assembly (AWZ3720 : SX-P920)
(AWZ3715 : SX-P720)
HEAD. P assembly
FR. AMP assembly
SX-P920 only
MIC assembly
SUB. POWER assembly
(AWZ3723)
1
2
3
4
5
6
A
B
C
D
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
IC404
Q154
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
IC701
Q151
WHITE
BLACK
ANP1532F
CMK-140SX
AWZ
AWK
CAUTION: REPLACE WITH SAME TYPE NO. ICP-N25 MFD. BY ROHM FOR IC114.
ATTENTION: REPLACER AVEC CAT. NO. ICP-N25 POUR IC114.


FR. AMP assembly (AWZ3735 : SX−P920) (AWZ3731 : SX−P720)
HEAD. P assembly
SX−P920 only
MIC assembly
CONNECT assembly
SUB. POWER assembly (AWZ3723)
BLACK
AWZ
CMK-140SX
AWK
FTZ2
FU51
3.15A 125V
T1.6A
TP1
TP2
CAUTION REPLACE WITH SAME TYPE NO. TCP-N25 MFD. BY ROHM FOR IC114
ATTENTION REPLACER AVEC CAT. NO. TCP-N25 POUR IC114
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES UNIQUEMENT
REPLACE WITH SAME TYPE NO. TCP-N50 MFD. BY ROHM FOR IC105, IC106
CAUTION REPLACE WITH SAME TYPE NO. TCP-N25 MFD. BY ROHM FOR IC104, IC107, IC108, IC109
+5V
GND
IC501
VR501
CN551
GND
B-
B+
FLAG2
FLAG1
RYCONT
REC R
PB R
GND
PB L
REC L
ACC
AC
CD R/E
CLK
S.DATA
S.CLK
TAPE R/E
GND(CT)
CD R
ACIN
ACIN
* SX−P920 ONLY
※ SX−P720 ONLY

NOTE
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

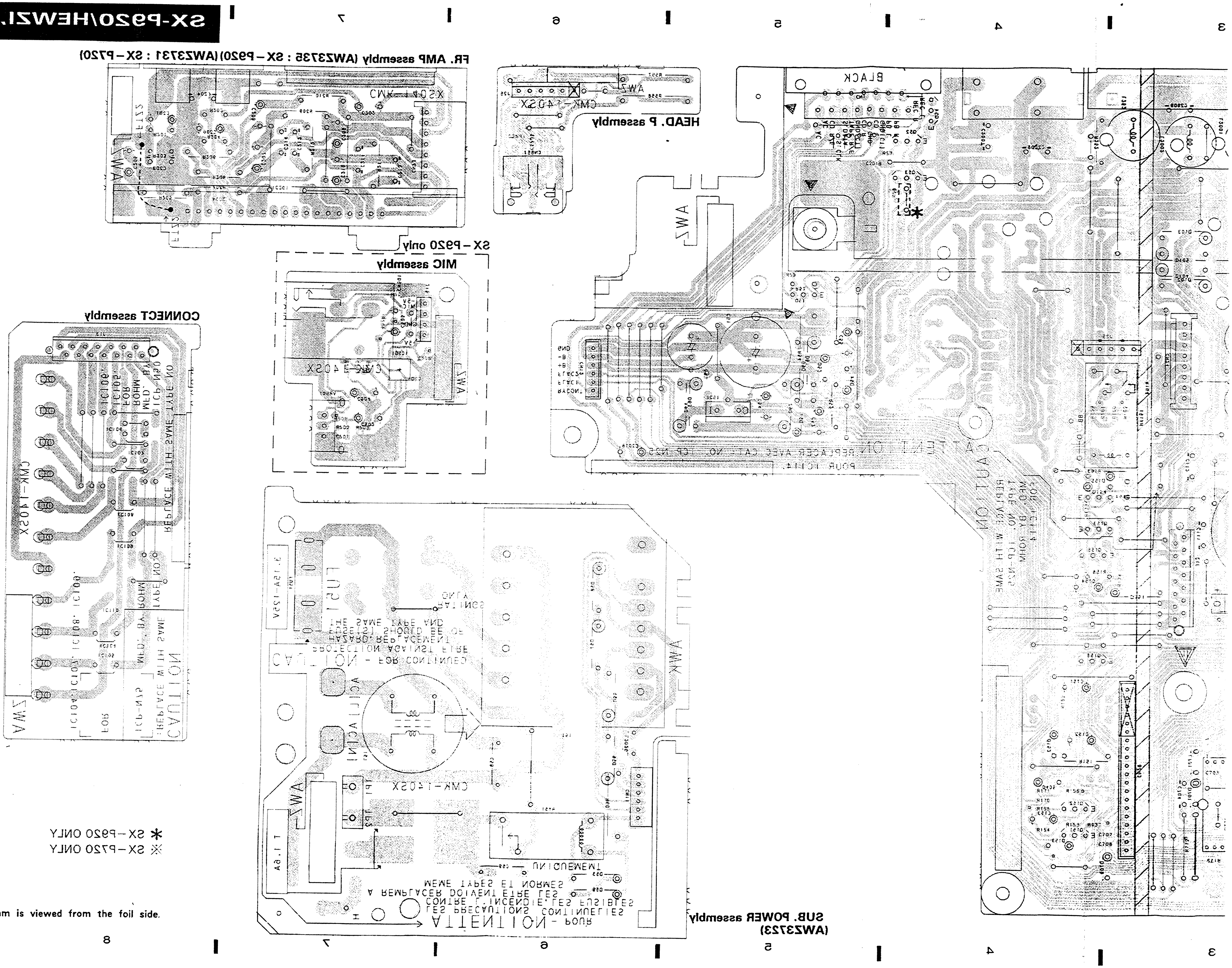
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

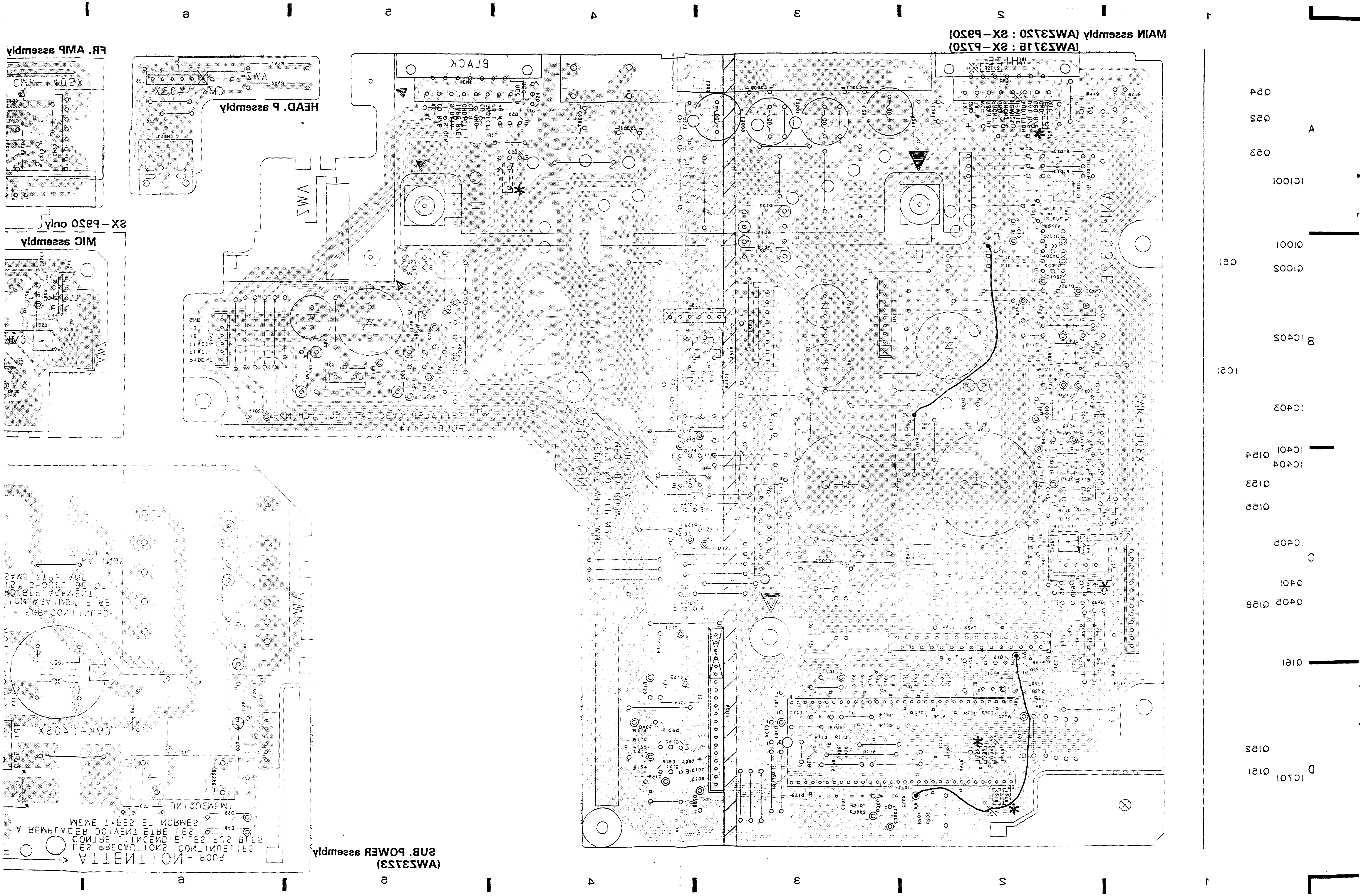
3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

This P. C. B connection diagram is viewed from the parts mounted side.


FR. AMP assembly (AWZ3735 : SX-P920) (AWZ3731 : SX-P720)
HEAD. P assembly
SX-P920 only
MIC assembly
CONNECT assembly
SUB. POWER assembly
(AWZ3723)
CMK-140SX
BLACK
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATING ONLY
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NORMES UNIQUEMENT
CAUTION REPLACE WITH SAME TYPE NO. ICP-N25 FOR IC114
ATTENTION REPLACER AVEC CAT. NO. ICP-N25 POUR IC114
CAUTION REPLACE WITH SAME TYPE NO. ICP-N25 FOR IC104
A
B
C
D
9
8
7
6
5
4
3

✱ SX-P920 ONLY
※ SX-P720 ONLY

This P.C.B. connection diagram is viewed from the foil side.

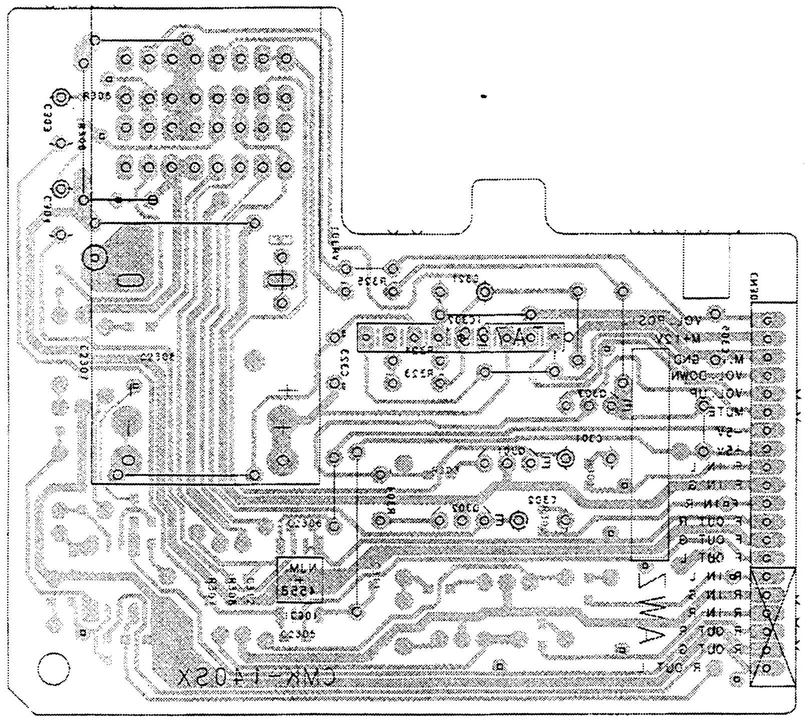

MAIN assembly (AWZ3720 : SX-P920)
(AWZ3715 : SX-P720)
FR. AMP assembly
HEAD. P assembly
SX-P920 only
MIC assembly
SUB. POWER assembly
(AWZ3723)
BLACK
WHITE
CAUTION
ATTENTION
1
2
3
4
5
6
A
B
C
D
Q54
Q52
Q53
IC1001
Q1001
Q1002
Q51
IC402
IC51
IC403
IC401
IC404
Q154
Q153
Q155
IC405
Q401
Q405
Q158
Q161
Q152
Q151
IC701

8.3.4 DISPLAY assembly, VR assembly AND REGULATOR assembly

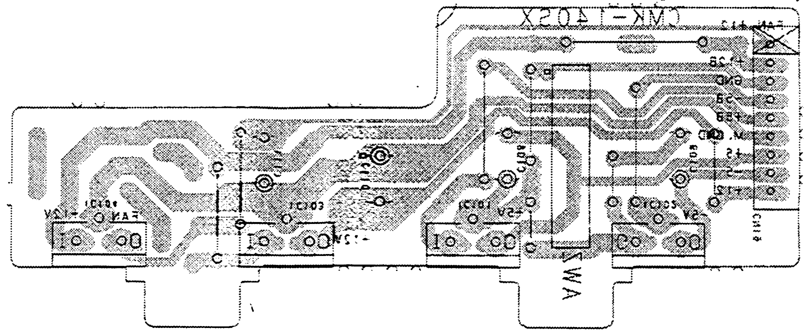
✻ SX-P920 ONLY
※ SX-P720 ONLY

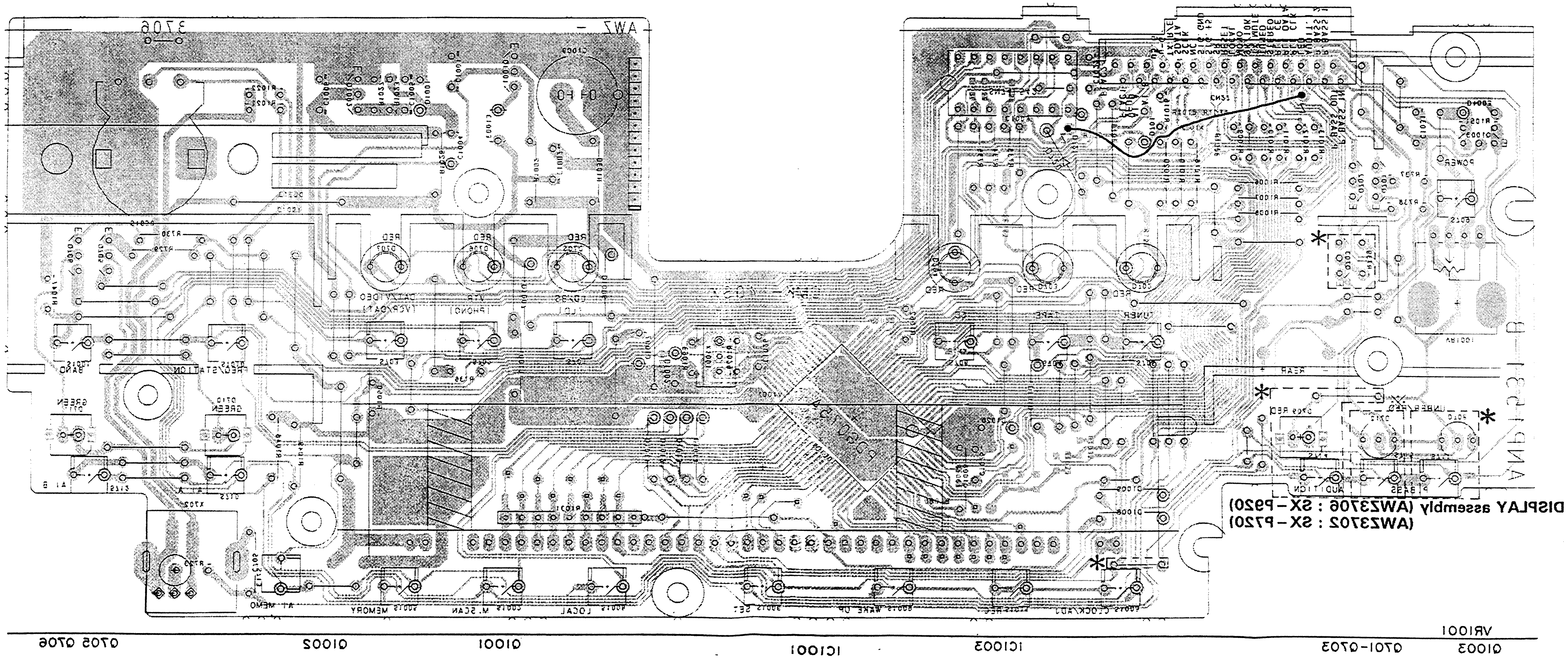
This P.C.B. connection diagram is viewed from the foil side.

VR assembly
(AWZ3709)


CMK-140SX
AWZ

REGULATOR assembly
(AWZ4009)


CMK-140SX
AWZ

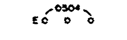
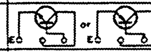
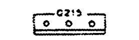
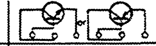
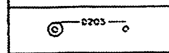
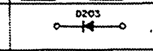
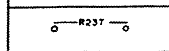
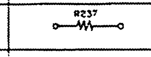
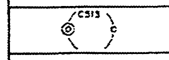
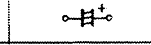
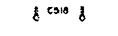
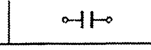

AWZ
3706
RED
GREEN
TUNER
AUDITION
POWER
AT MEMO
MEMORY
M.SCAN
LOCAL
SET
WAKE UP
CLOCK/ADJ
VR1001
Q0705 Q0706
Q0102
Q0101
IC1001
IC1003
Q0701-Q0703
Q0103

DISPLAY assembly (AWZ3706 : SX-P920)
(AWZ3702 : SX-P720)

This P. C. B connection diagram is viewed from the parts mounted side.

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

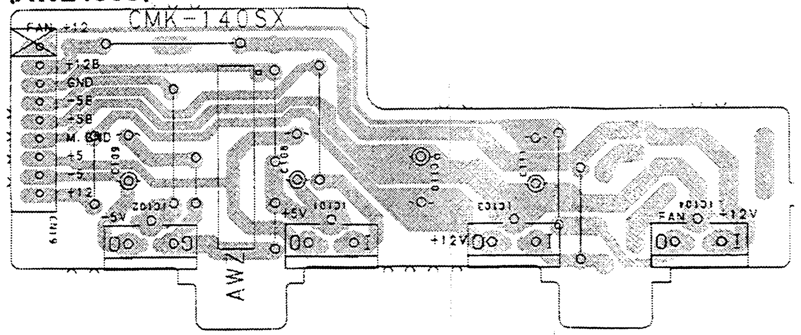
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

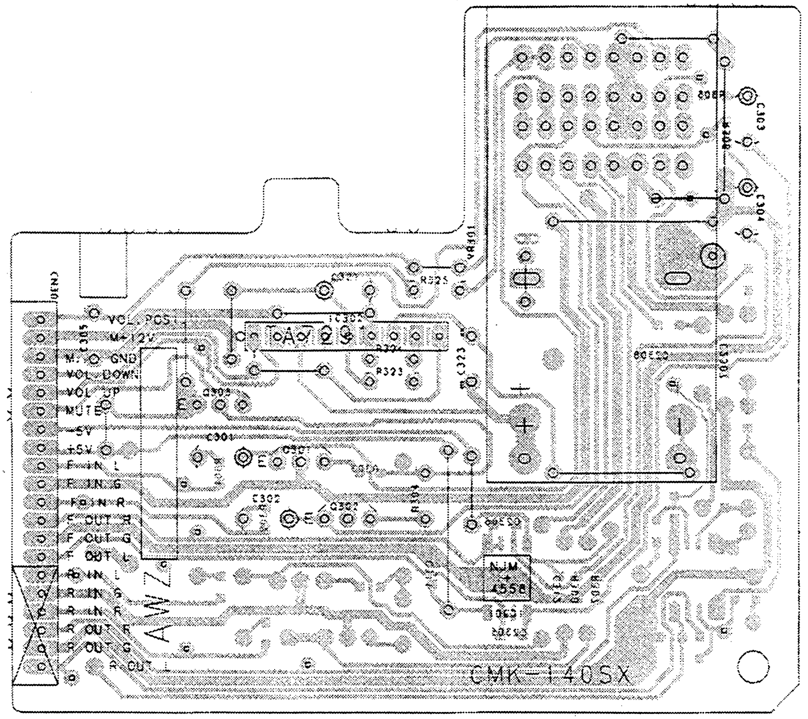
3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side
5. The transistor terminal to which E is affixed shows the emitter.

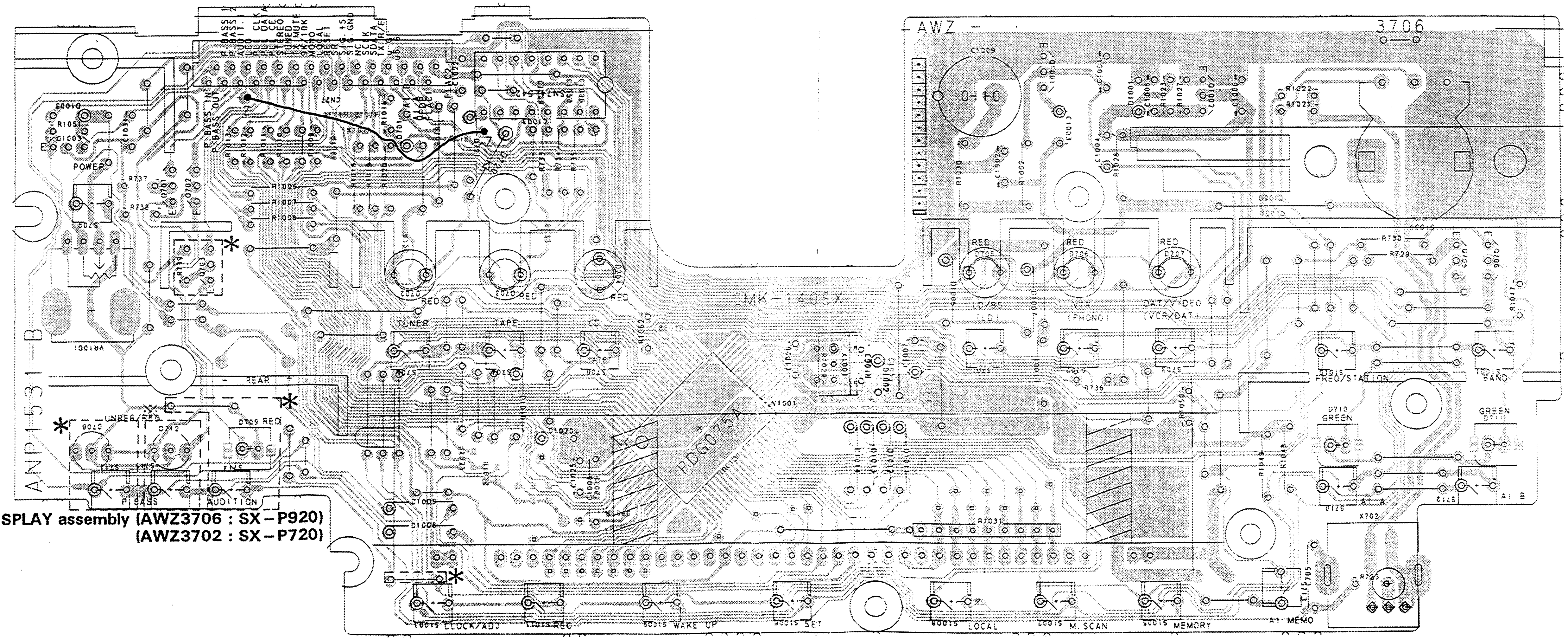
✻ SX−P920 ONLY
※ SX−P720 ONLY

REGULATOR assembly (AWZ4009)


CMK-140SX
FAN +12
+12
+12B
GND
-5B
+5B
M.GND
+5
+12
-5V
+5V
+12V
FAN -12V
AWZ

VR assembly (AWZ3709)

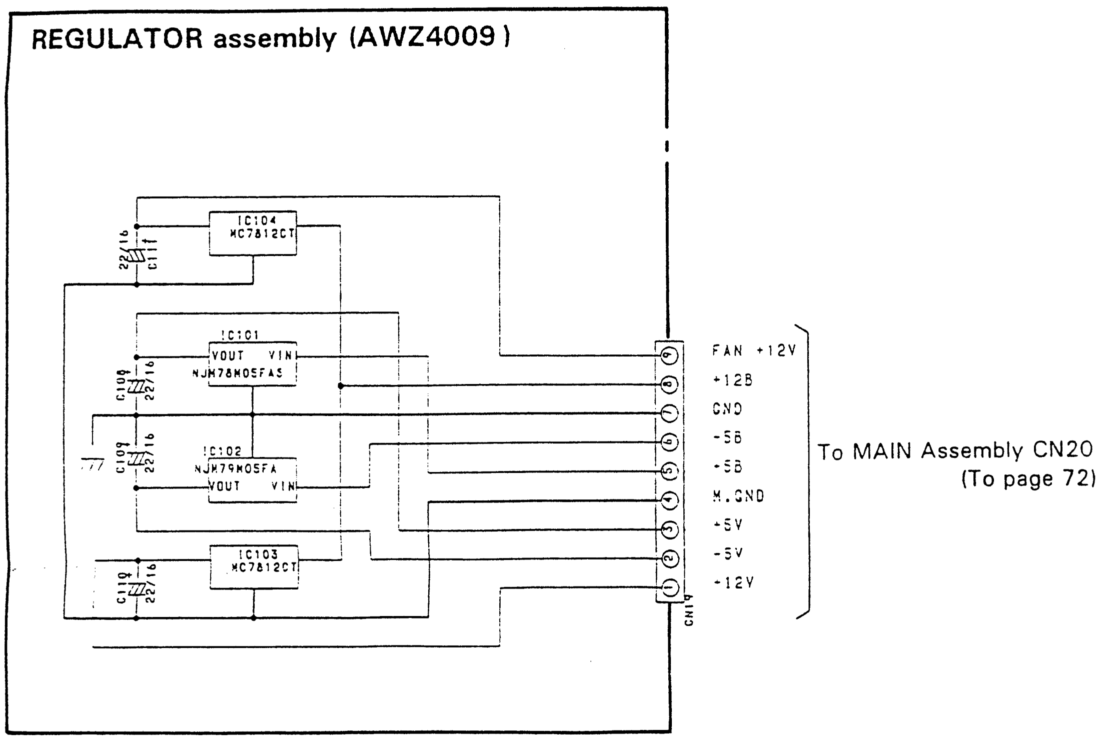

VOL POS
M+12V
M.GND
VOL DOWN
VOL UP
MUTE
+5V
-5V
F.IN L
F.IN G
F.IN R
F.OUT R
F.OUT G
F.OUT L
R.IN L
R.IN G
R.IN R
R.OUT R
R.OUT G
R.OUT L
NJM 4558
AWZ
CMK-140SX


AWZ-3706
POWER
ANP1531-B
VR1001
REAR
UNREG/RED
D709 RED
P.BASS
AUDITION
TUNER
TAPE
RED
LD/BS (LD)
VCR (PHONO)
DAT/VIDEO (VCR/DAT)
CMK-140SX
PDG075A
FREQ/STATION
BAND
GREEN
CLOCK/ADJ
REC
WAKE UP
SET
LOCAL
M.SCAN
MEMORY
MEMO

DISPLAY assembly (AWZ3706 : SX−P920)
(AWZ3702 : SX−P720)

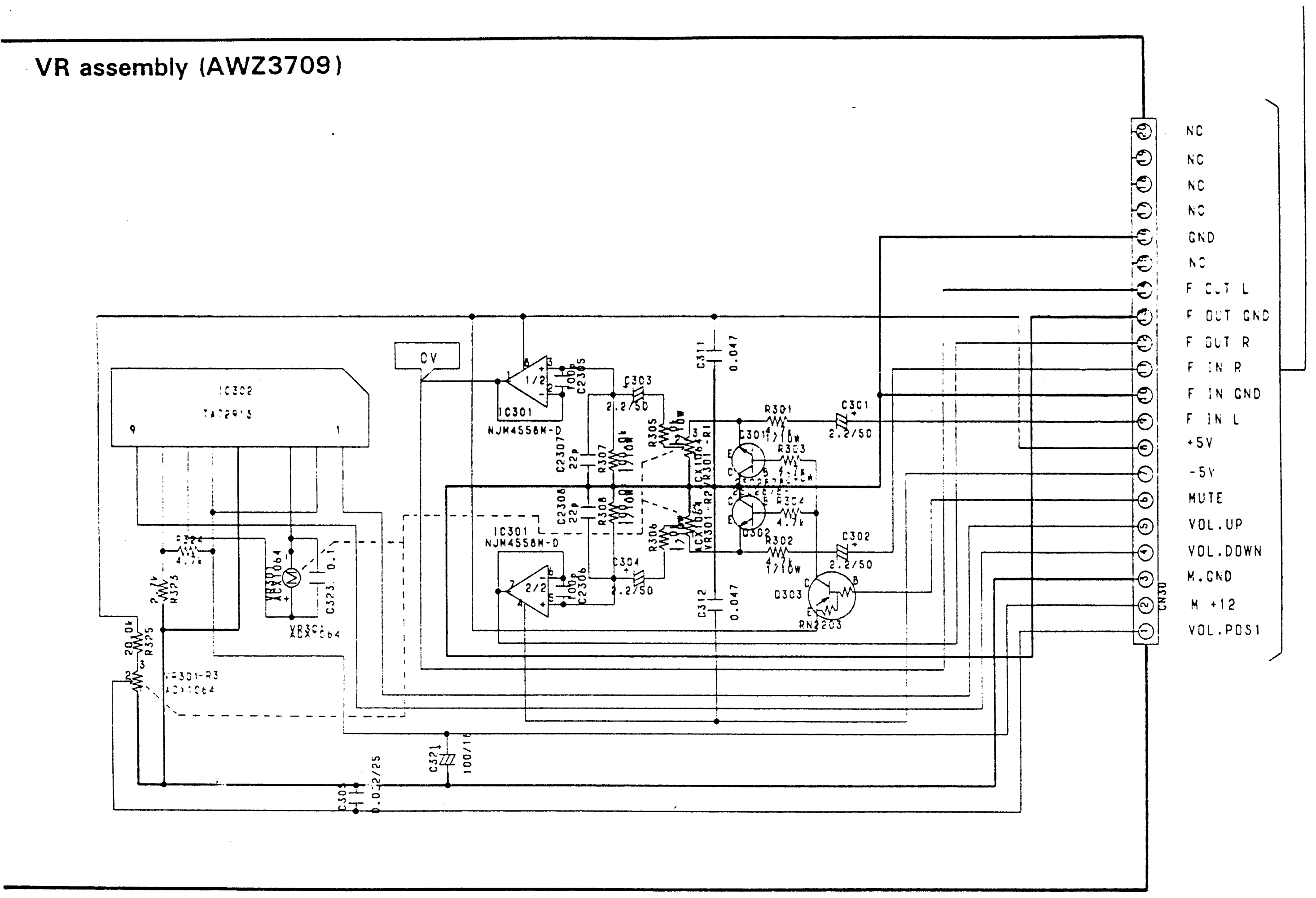
VR1001 Q1003 Q701-Q703 IC1003 IC1001 Q1001 Q1002 Q705 Q706

REGULATOR assembly (AWZ4009)

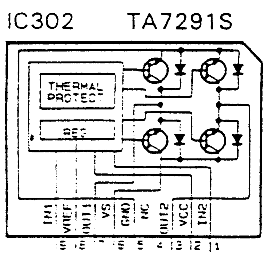

IC104
MC7812CT
IC101
NJM78M05FA
IC102
NJM79M05FA
IC103
MC7812CT
C111
C108
C109
C110
CN14
FAN +12V
+12B
GND
-5B
+5B
M.GND
+5V
-5V
+12V
To MAIN Assembly CN20
(To page 72)

To MAIN Assembly CN29
(To page 71)

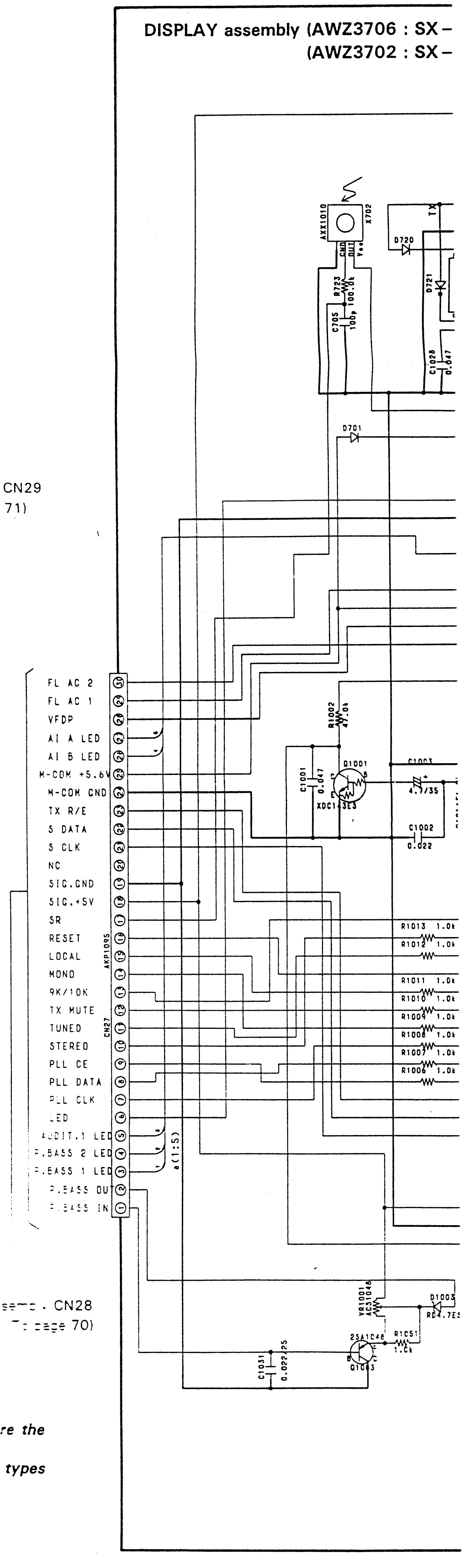
VR assembly (AWZ3709)


IC302
TA7291S
IC301
NJM4558M-D
1/2
2/2
Q301
Q302
Q303
RN2203
VR301
C301
C302
C303
C304
C311
C312
C321
CN30
NC
NC
NC
NC
GND
NC
F OUT L
F OUT GND
F OUT R
F IN R
F IN GND
F IN L
+5V
-5V
MUTE
VOL.UP
VOL.DOWN
M.GND
M +12
VOL.POSI

IC302 TA7291S


THERMAL PROTECT
REG
IN1
VREF
RRIT1
VS
GND
NC
RRIT2
VCC
IN2

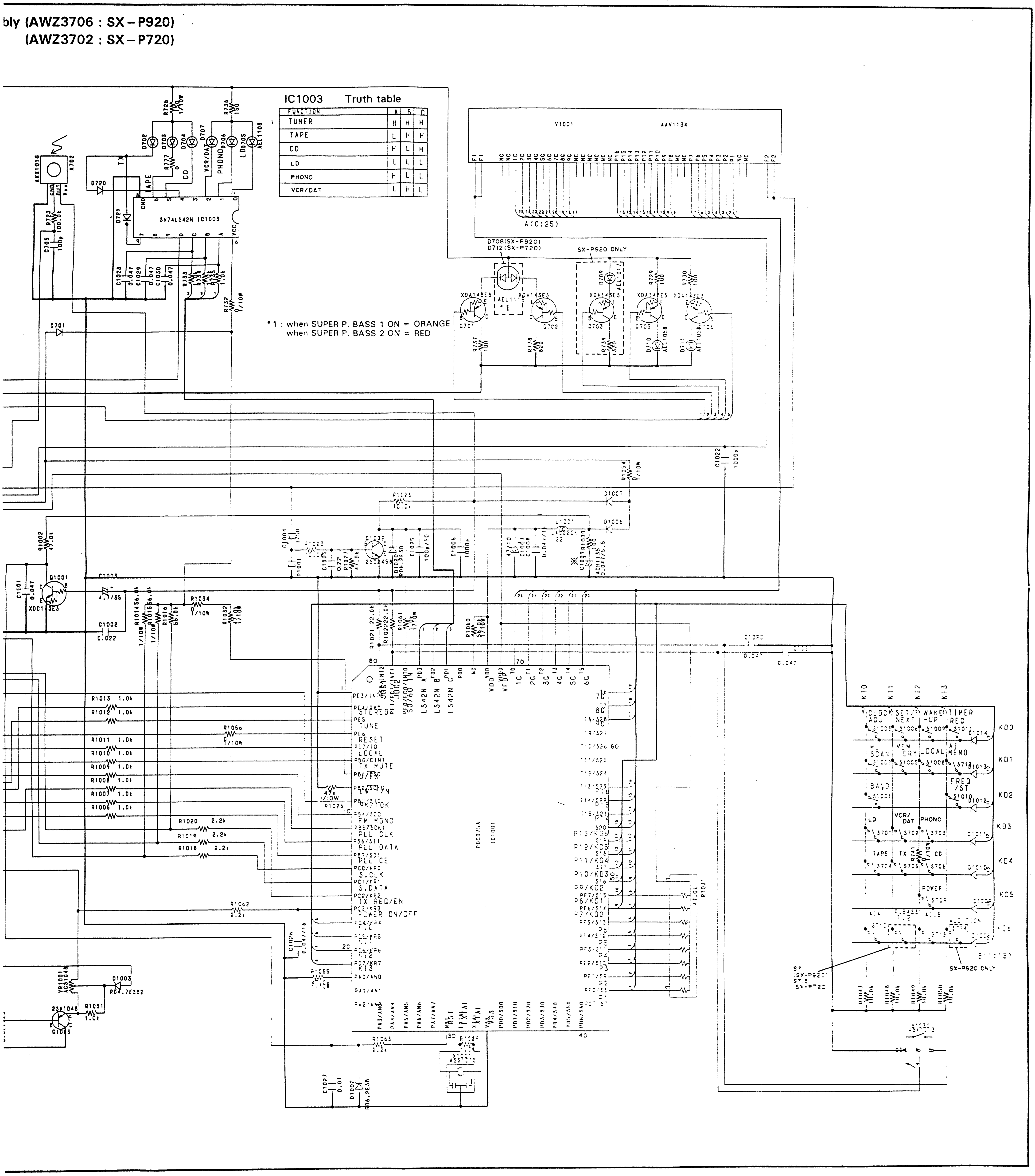
DISPLAY assembly (AWZ3706 : SX-
(AWZ3702 : SX-


AXX1010
X702
D720
D721
D701
R723
C705
C1028
R1002
Q1001
XDC1
C1001
C1003
C1002
R1013
R1012
R1011
R1010
R1009
R1008
R1007
R1006
VR1001
D1003
Q1003
C1031
R1051
CN27
AKP1095
FL AC 2
FL AC 1
VFDP
AI A LED
AI B LED
M-COM +5.6V
M-COM GND
TX R/E
S DATA
S CLK
NC
SIG.GND
SIG.+5V
SR
RESET
LOCAL
MONO
9K/10K
TX MUTE
TUNED
STEREO
PLL CE
PLL DATA
PLL CLK
LED
AUDIT.1 LED
P.BASS 2 LED
P.BASS 1 LED
P.BASS OUT
P.BASS IN

To MAIN Assembly CN28
(To page 70)

NOTE :
The VR assemblies of SX-P920 and SX-P720 types are the same.
The REGULATOR assemblies of SX-P920 and SX-P720 types are the same.

bly (AWZ3706 : SX－P920)
(AWZ3702 : SX－P720)


V1001
AAV1134
A(0:25)
D708(SX-P920)
D712(SX-P720)
SX-P920 ONLY
AEL1115
*1
XDA143ES
Q701
Q702
Q703
Q705
D709
AEL1011
D710
AEL1058
D711
R737
R738
R739
R729
R730
SN74LS42N IC1003
X702
AXX1010
D702
D703
D704
D707
D706
D705
AEL1108
TAPE
CD
VCR/DAT
PHONO
LD
TX
R726
R736
R777
D720
D721
R723
C705
C1028
C1029
C1030
R733
R734
R735
R732
D701
R1002
Q1001
XDC143ES
C1001
C1003
C1002
R1034
R1032
R1014
R1015
R1016
R1013 1.0k
R1012 1.0k
R1011 1.0k
R1010 1.0k
R1009 1.0k
R1008 1.0k
R1007 1.0k
R1006 1.0k
R1020 2.2k
R1019 2.2k
R1018 2.2k
R1056
R1062
R1025
R1055
R1063
R1021
R1022
R1061
R1060
R1054
R1028
R1023
C1004
C1005
C1026
C1025
C1006
C1007
C1008
C1009
C1020
C1022
C1024
C1027
D1001
D1002
D1003
D1006
D1007
D1010
L1001
Q1002
2SA1048
Q1003
R1051
VR1001
PD6015A IC1001
PE3/INT3
STEREO
TUNE
RESET
LOCAL
TX MUTE
MW 7/N
SK/10K
FM MONO
PLL CLK
PLL DATA
PLL CE
S.CLK
S.DATA
TX REQ/EN
POWER ON/OFF
K13
LS42N A
LS42N B
LS42N C
VDD
VFDP
R1031
K10
K11
K12
K13
KD0
KD1
KD2
KD3
KD4
KD5
CLOCK ADJ
SET/NEXT
WAKE-UP
TIMER REC
SCAN
MEM
CRY
LOCAL
AI MEMO
BAND
FREQ /ST
LD
VCR/DAT
PHONO
TAPE
TX
CD
POWER
P.BASS
S7
(SX-P920)
SX-P920 ONLY
R1047
R1048
R1049
R1050
S1001
S1002
S1003
S1004
S1005
S1006
S701
S702
S703
S704
S705
S706
S708
D1011
D1012
D1013
D1014

IC1003 Truth table

FUNCTION	A	B	C
TUNER	H	H	H
TAPE	L	H	H
CD	H	L	H
LD	L	L	L
PHONO	H	L	L
VCR/DAT	L	H	L

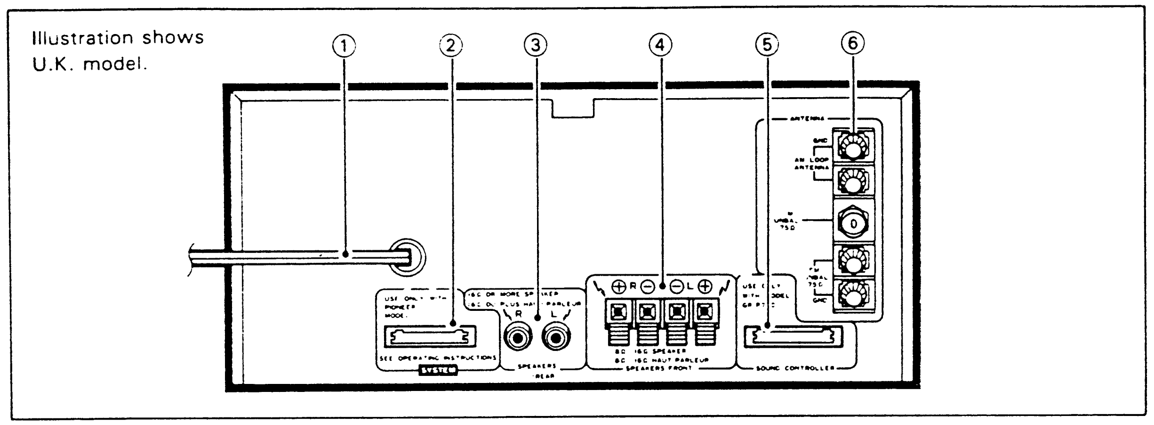
*1 : when SUPER P. BASS 1 ON = ORANGE
when SUPER P. BASS 2 ON = RED

9 PANEL FACILITIES

9 REAR PANEL FACILITIES

STEREO RECEIVER : SX – P920/SX – P720

Illustration shows U.K. model.



① **Power cord**
Connect this to the AC wall socket.

② **SYSTEM jack**
Connect the system cable here.

③ **SPEAKERS (REAR) jack**
Connect the surround speaker systems.

NOTE:
Connect a speaker system with a nominal impedance of 16Ω or more.

④ **SPEAKERS (FRONT) terminals**
L: Connect the left speaker system as seen from the listening position.
R: Connect the right speaker system as seen from the listening position.

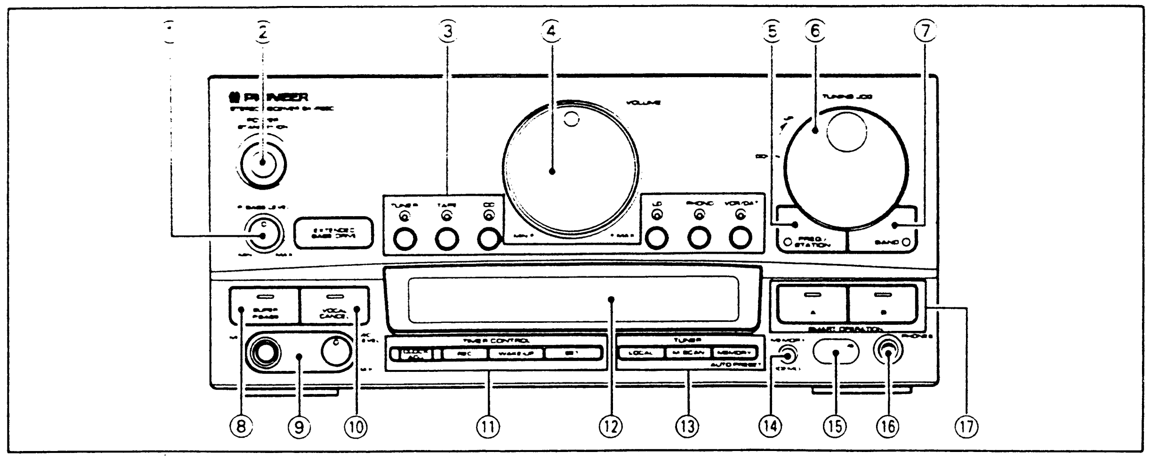
NOTE:
Connect a speaker system with a nominal impedance ranging from 8Ω to 16Ω.

⑤ **SOUND PROCESSOR jack SX-P920**
SOUND CONTROLLER jack SX-P720
Connect the SOUND FIELD PROCESSOR (or SOUND IMAGE CONTROLLER) system cable here.

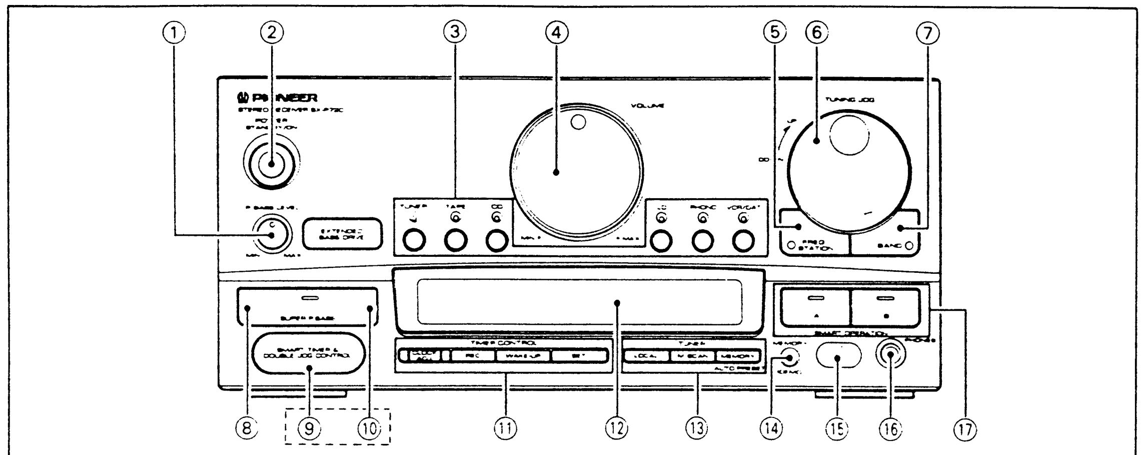
⑥ **FM/AM ANTENNA terminals**
Antennas must be connected to these terminals: otherwise station reception is not possible. See page 11 for details on ANTENNA CONNECTIONS.

9.2 FRONT PANEL FACILITIES

STEREO RECEIVER : SX – P920



STEREO RECEIVER : SX – P720



- Multi-voltage models include the ⑨ and ⑩ shown on the SX-P920.

① **P.BASS LEVEL control**
P.BASS stands for Proper Bass Active Supply System, and refers to the built-in system for emphasizing low sound ranges.
This unit is equipped with the Super P.BASS to allow you to select two kinds of bass reproduction, depending on the kind of music source and your own preference. This knob can be used to adjust the super P.BASS level when the SUPER P.BASS button is set to ON.

② **POWER STANDBY/ON switch**
This is the switch for electric power.

ON:	When set to the ON position, power is supplied and the unit becomes operational.
STANDBY:	When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. The receiver section display indicates only the time.

③ **Input selectors**
(TUNER, TAPE, CD, LD, PHONO, VCR/DAT)

④ **VOLUME control**

⑤ **FREQ./STATION button**
Use to select the display mode (frequency mode or station mode).
- **Frequency mode:** Display indicates the frequency of the tuned station, and the current time.
- **Station mode:** Display indicates the frequency of the tuned station together with the recorded station number assigned to that station.

⑥ **TUNING JOG control**
Use to set the time and tune the receiver's reception frequency.

⑦ **BAND button**
Use to select FM or AM bands.

⑧ **SUPER P.BASS button**
Use this button to select from among the two types of super P.BASS effect desired, then use the P.BASS level control to adjust the level as desired.

⑨ **MIC (microphone) jack and MIC LEVEL (microphone level) control [on SX-P920 and SX-P720 (multi-voltage model) only]**

⑩ **VOCAL CANCEL button [on SX-P920 and SX-P720 (multi-voltage model) only]**
Set to ON to use the vocal cancel function.

⑪ **TIMER CONTROL buttons**
(CLOCK ADJ., REC, WAKE-UP, SET)
Use these buttons to set the current clock time and the timer for timed recording and playback.

⑫ **Display**

⑬ **TUNER buttons**
- **LOCAL button:** Set to ON when receiving very nearby stations (the strong signals may otherwise produce high levels of static).
- **M.SCAN (memory scan) button:** Automatically scans (for about five seconds each) each of the stations stored in the station memory.
- **MEMORY button:** Use to save broadcasting stations in the station memory.

⑭ **MEMORY (DEMO) button**
Use in conjunction with the SMART operation memory. If this button is pressed when the unit's power is STANDBY, the DEMO mode will be selected; the power will turn on and the unit's various features will be displayed.

⑮ **Remote sensor window**

⑯ **Headphone jack (PHONES)**

⑰ **SMART OPERATION A/B buttons**
These buttons are used with the SMART operation mode function to store your favorite listening modes, thus allowing you to select them at a single touch.

10. SPE

10.1 SX –

STEREO RE

Amplifier Sec
< For Multi-v
Continuously
per channel,
17,000 Hertz
monic distort

* Measured p
sion's Trac
Claims for

Continuous po
U.K., Europ

Continuous po
U.K., Europ

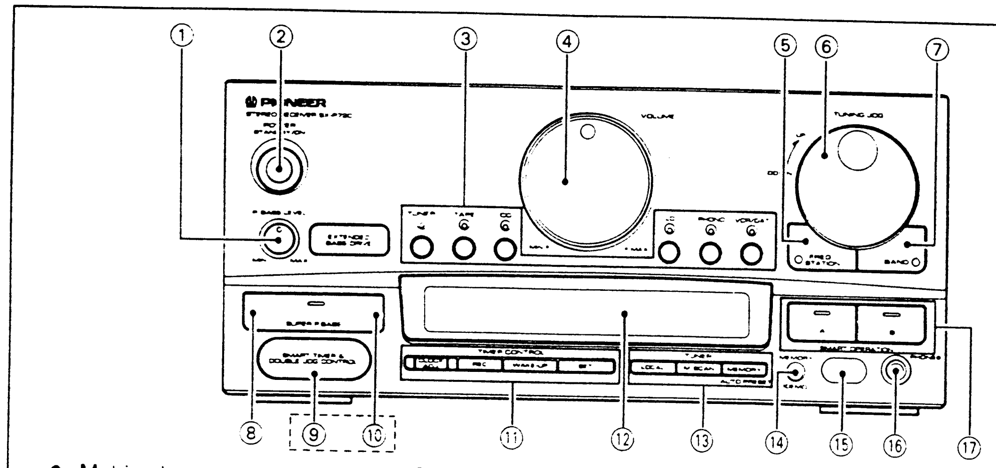
Multi-voltag
Music power (
U.K., Europ
Multi-voltag
Peak music po
(Multi-voltage
Total harmonic
1 kHz, 25 W,

Electrical Sec
Power requiren
U.K. models
European m
Multi-voltag

Power consum
U.K. models
European m
Multi-voltag
External dimen.

10
Weight ....
** Measured

STEREO RECEIVER : SX－P720



- Multi-voltage models include the ⑨ and ⑩ shown on the SX-P920.

① **P.BASS LEVEL control**

P.BASS stands for Proper Bass Active Supply System, and refers to the built-in system for emphasizing low sound ranges.

This unit is equipped with the Super P.BASS to allow you to select two kinds of bass reproduction, depending on the kind of music source and your own preference. This knob can be used to adjust the super P.BASS level when the SUPER P.BASS button is set to ON.

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This is the switch for electric power.

ON:	When set to the ON position, power is supplied and the unit becomes operational.
STANDBY:	When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. The receiver section display indicates only the time.

③ **Input selectors (TUNER, TAPE, CD, LD, PHONO, VCR/DAT)**

④ **VOLUME control**

⑤ **FREQ./STATION button**

Use to select the display mode (frequency mode or station mode).

- **Frequency mode:** Display indicates the frequency of the tuned station, and the current time.
- **Station mode:** Display indicates the frequency of the tuned station together with the recorded station number assigned to that station.

⑥ **TUNING JOG control**

Use to set the time and tune the receiver's reception frequency.

⑦ **BAND button**

Use to select FM or AM bands.

⑧ **SUPER P.BASS button**

Use this button to select from among the two types of super P.BASS effect desired, then use the P.BASS level control to adjust the level as desired.

⑨ **MIC (microphone) jack and MIC LEVEL (microphone level) control [on SX-P920 and SX-P720 (multi-voltage model) only]**

⑩ **VOCAL CANCEL button [on SX-P920 and SX-P720 (multi-voltage model) only]**

Set to ON to use the vocal cancel function.

⑪ **TIMER CONTROL buttons (CLOCK ADJ., REC, WAKE-UP, SET)**

Use these buttons to set the current clock time and the timer for timed recording and playback.

⑫ **Display**

⑬ **TUNER buttons**

- **LOCAL button:** Set to ON when receiving very nearby stations (the strong signals may otherwise produce high levels of static).
- **M.SCAN (memory scan) button:** Automatically scans (for about five seconds each) each of the stations stored in the station memory.
- **MEMORY button:** Use to save broadcasting stations in the station memory.

⑭ **MEMORY (DEMO) button**

Use in conjunction with the SMART operation memory. If this button is pressed when the unit's power is STANDBY, the DEMO mode will be selected; the power will turn on and the unit's various features will be displayed.

⑮ **Remote sensor window**

⑯ **Headphone jack (PHONES)**

⑰ **SMART OPERATION A/B buttons**

These buttons are used with the SMART operation mode function to store your favorite listening modes, thus allowing you to select them at a single touch.

10. SPECIFICATIONS

10.1 SX－P920

STEREO RECEIVER: SX-P920

Amplifier Section

<For Multi-voltage models>

Continuously Average Power Output is 50 Watts* per channel, min., at 8 ohms from 40 Hertz to 17,000 Hertz, with no more than 0.9% total harmonic distortion

* Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (DIN)	
U.K., European models	50 W +50 W (1 kHz, T.H.D 1%. 8 ohms)
Continuous power output (RMS)	
U.K., European models	60 W +60 W (1 kHz, T.H.D 5%, 8 ohms)
Multi-voltage models	70 W +70 W
Music power (DIN) (1 kHz, T.H.D 1%, 8 ohms)	
U.K., European models	85 W +85 W
Multi-voltage models	95 W +95 W
Peak music power (Multi-voltage models only)	465 W
Total harmonic distortion, 1 kHz, 25 W, 8 ohms	0.2%**

Electrical Section, Other

Power requirements	
U.K. models	AC 240 V, 50/60 Hz
European models	AC 220-230 V, 50/60 Hz
Multi-voltage models	AC 110/120－127/220/240 V (switchable), 50/60 Hz
Power consumption	
U.K. models	300 W
European models	290 W
Multi-voltage models	325 W
External dimensions	260 (W) × 117 (H) × 262 (D) mm 10-1/4 (W) × 4-5/8 (H) × 10-5/16 (D) in
Weight	5.4 kg (11 lb 15 oz.)

** Measured with audio spectrum analyzer.

FM Tuner Section

Reception frequency range	87.5－108.0 MHz
Usable Sensitivity	MONO: 12.8 dBf, IHF (1.2 μV/75 ohms)
Sensitivity (DIN)	
MONO (S/N 26 dB)	1 μV/75 ohms
STEREO (S/N 46 dB)	50 μV/75 ohms
Signal-to-Noise Ratio (IHF, 85 dBf Input)	MONO: 77 dB
Signal-to-Noise Ratio (DIN)	MONO: 66 dB STEREO: 60 dB
Distortion	STEREO: 0.5%, 1 kHz
Antenna input	75 ohms unbalanced

AM (MW) Tuner Section

Frequency range (For U.K., European and multi-voltage models)	531 kHz to 1,602 kHz
(For U.S., Canadian and multi-voltage models)	530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna)	350 μV/m
Antenna	Loop Antenna

LW Tuner Section (For LW equipped models only)

Frequency range	153 kHz to 281 kHz
Sensitivity (IHF, Loop Antenna)	1,500 μV/m
Antenna	Loop Antenna

10.2 SX – P720

STEREO RECEIVER: SX-P720

Amplifier Section

<For U.S., Canadian and Multi-voltage models>
Continuously Average Power Output is 40 Watts* per channel, min., at 8 ohms from 40 Hertz to 20,000 Hertz, with no more than 0.9% total harmonic distortion

> * Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (DIN)
  U.K., European models .... 40 W +40 W
  (1 kHz, T.H.D 1%, 8 ohms)
Continuous power output (RMS)
  U.K., European models .... 50 W +50 W
  (1 kHz, T.H.D 5%, 8 ohms)
  U.S., Canadian and
  Multi-voltage models .... 57 W +57 W
Music power (DIN) (1 kHz, T.H.D 1%, 8 ohms)
  U.K., European models .... 65 W +65 W
  Multi-voltage models .... 75 W +75 W
Peak music power
(Multi-voltage models only) .... 375 W
Total harmonic distortion,
1 kHz, 20 W, 8 ohms 0.2%**

Electrical Section, Other

Power requirements
  U.K. models .... AC 240 V, 50/60 Hz
  European models .... AC 220-230 V, 50/60 Hz
  U.S., Canadian models .... AC 120 V, 60 Hz
  Multi-voltage models .... AC 110/120–127/
  220/240 V (switchable), 50/60 Hz
Power consumption
  U.K. models .... 250 W
  European models .... 240 W
  U.S., Canadian models .... 125 W
  Multi-voltage models............................... 265 W
External dimensions ....
  260 (W) × 117 (H) × 262 (D) mm
  10-1/4 (W) × 4-5/8 (H) × 10-5/16 (D) in
Weight .... 5.2 kg (11 lb 7 oz.)
** Measured with audio spectrum analyzer.

FM Tuner Section

Reception frequency range .... 87.5–108.0 MHz
Usable Sensitivity .... MONO: 12.8 dBf, IHF
  (1.2 μV/75 ohms)
Sensitivity (DIN)
  MONO (S/N 26 dB) .... 1 μV/75 ohms
  STEREO (S/N 46 dB) .... 50 μV/75 ohms
Signal-to-Noise Ratio
(IHF, 85 dBf Input) .... MONO: 77 dB
Signal-to-Noise Ratio (DIN) .... MONO: 66 dB
  STEREO: 60 dB
Distortion .... STEREO: 0.5%, 1 kHz
Antenna input .... 75 ohms unbalanced

AM (MW) Tuner Section

Frequency range (For U.K., European and multi-voltage models) .... 531 kHz to 1,602 kHz
(For U.S., Canadian and
multi-voltage models) .... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) .... 350 μV/m
Antenna .... Loop Antenna

LW Tuner Section
(For LW equipped models only)

Frequency range .... 153 kHz to 281 kHz
Sensitivity (IHF, Loop Antenna) .... 1,500 μV/m
Antenna .... Loop Antenna